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Service Manual

ORDER NO.
CRT4127

MULTI-CD CONTROL HIGH POWER CD/MP3/WMA/AAC PLAYER WITH FM/AM TUNER

DEH-P800PRS/XN/UC
DEH-P80RSII /XN/ES

MULTI-CD CONTROL DSP HIGH POWER CD/MP3/WMA/AAC PLAYER WITH RDS TUNER

DEH-P88RSII /XN/EW5

COMPACT disc DIGITAL AUDIO

COMPACT disc DIGITAL AUDIO TEXT

Plays Windows Media™

This service manual should be used together with the following manual(s) listed below. For the parts numbers, adjustments, etc. which are not shown in this manual, refer to the following manual(s).

Model No.	Order No.	Mech. Module	Remarks
DEH-P880PRS/XN/UC	CRT3650		
CX-3164	CRT3583	S10.5COMP1	CD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936
ⓒ**PIONEER CORPORATION 2008**

K-ZZZ. FEB. 2008 Printed in Japan

SAFTY INFORMATION

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

EXPLODED VIEWS AND PARTS LIST

PACKING(UC,ES MODEL)(Page 12)

PACKING(UC,ES MODEL) SECTION PARTS LIST

* : Non spare part

Mark	No.	Description	DEH-P880PRS/XN/UC	DEH-P800PRS/XN/UC
	1	Cord Assy	CDE7701	CDP1130
	11	Carton	CHG5735	CHG6406
	12	Contain Box	CHL5735	CHL6406
	16-2	Owner's Manual	CRD4080	CRD4265
	16-5	Installation Manual	CRD4081	CRD4266
*	16-9	Caution Card	CRN1089	Not used

Mark	No.	Description	DEH-P80RS/XN/ES	DEH-P80RSⅡ/XN/ES
	11	Carton	CHG5736	CHG6407
	12	Contain Box	CHL5736	CHL6407
	16-2	Owner's Manual	CRD4082	CRD4267
	16-3	Owner's Manual	CRD4083	CRD4268
	16-4	Owner's Manual	CRB2177	CRB2495
	16-5	Installation Manual	CRD4084	CRD4269

PACKING(EW5 MODEL)(Page 14)

PACKING(EW5 MODEL) SECTION PARTS LIST

Mark	No.	Description	DEH-P88RS/XN/EW5	DEH-P88RSⅡ/XN/EW5
	12	Carton	CHG5882	CHG6405
	13	Contain Box	CHL5882	CHL6405
	19-2	Owner's Manual	CRB2176	CRB2494
	19-3	Owner's Manual	CRD4076	CRD4261
	19-4	Owner's Manual	CRD4077	CRD4262
	19-5	Owner's Manual	CRD4078	CRD4263
	16-6	Installation Manual	CRD4079	CRD4264
*	16-8	Passport	CRY1013	Not used

Owner's Manual, Installation Manual

Part No.	Language
CRD4261	English, Spanish
CRD4262	German, French
CRD4263	Italian, Dutch
CRD4264	English, Spanish, German, French, Italian, Dutch, Russian
CRD4265	English, French
CRD4266	English, French
CRD4267	English, Spanish
CRD4268	Portuguese(B), Traditional Chinese
CRD4269	English, Spanish, Portuguese(B), Traditional Chinese, Arabic
CRB2494	Russian
CRB2495	Arabic

EXTERIOR(1)(UC,ES MODEL)(Page 16)

EXTERIOR(1)(UC,ES MODEL) SECTION PARTS LIST

Mark	No.	Description	DEH-P880PRS/XN/UC	DEH-P800PRS/XN/UC
	1	Screw	BSZ26P060FTC	BSZ26P060FCU
	13	Case Assy	CXC6908	CXC9190(Case Unit)
	14	Holder	CNC8659	CND3598
	19	Panel	CNS8516	CNS9342
	20	Tuner Amp Unit	CWN1478	CWN3453
	23	Screw	BMZ26P120FTC	BMZ26P120FTB
	24	Screw	BMZ26P180FTC	BMZ26P180FTB
	26	Antenna Cable	CDH1336	CDH1355
	38	Holder	CND3158	CND4435
	40	Heat Sink	CNR1837	CNR1869
	48	Drive Unit	CXC6620	CXC9188
	60	Chassis Unit	CXC5680	* CXC9189

Mark	No.	Description	DEH-P80RS/XN/ES	DEH-P80RSⅡ/XN/ES
	14	Holder	CNC8659	CND3598
	19	Panel	CNS8516	CNS9342
	20	Tuner Amp Unit	CWN1479	CWN3552
	48	Drive Unit	CXC6620	CXC9393
	60	Chassis Unit	CXC5680	* CXC9394

EXTERIOR(1)(EW5 MODEL)(Page 18)

EXTERIOR(1)(EW5 MODEL) SECTION PARTS LIST

Mark	No.	Description	DEH-P88RS/XN/EW5	DEH-P88RSⅡ/XN/EW5
	14	Holder	CNC8659	CND3598
	19	Panel	CNS8516	CNS9342
	20	Tuner Amp Unit	CWN1477	CWN3452
	48	Drive Unit	CXC6620	CXC9393
	60	Chassis Unit	CXC5680	* CXC9394

EXTERIOR(2)(Page 20)

EXTERIOR(2) SECTION PARTS LIST

*:Non spare part

Mark	No.	Description	DEH-P880PRS/XN/UC	DEH-P800PRS/XN/UC
	1	Detach Grille Assy	CXC5764	CXC9225
	3	Button(EJECT)	CAC9616	CAC9750
	19	Knob Unit(SOURCE,VOLUME)	CXC5740	CXC5742
	20	Knob Unit(MULTI-CONTROL)	CXC5741	CXC5743
	21	Button Unit(EQ,CLK)	CXC5745	CXC9205
	22	Button Unit(BAND,DISP)	CXC5748	CXC9208
	24	Sub Grille Assy	CXC5823	CXC9227
	28	Panel	CNR1843	CNR1953
	29	Panel	CNR1847	CNR1956
	30	Grille Unit	CXC5732	CXC5734
*	31	Badge	CAH1956	CAH2027
	32	Spacer	CNN1456	Not used

Mark	No.	Description	DEH-P80RS/XN/ES	DEH-P80RSⅡ/XN/ES
	1	Detach Grille Assy	CXC5765	CXC9402
	3	Button(EJECT)	CAC9616	CAC9750
	19	Knob Unit(SOURCE,VOLUME)	CXC5740	CXC9192
	20	Knob Unit(MULTI-CONTROL)	CXC5741	CXC9193
	21	Button Unit(EQ,CLK)	CXC5746	CXC9206
	22	Button Unit(BAND,DISP)	CXC5748	CXC9208
	24	Sub Grille Assy	CXC5824	CXC9404
	28	Panel	CNR1844	CNR1954
	29	Panel	CNR1846	CNR1957
	30	Grille Unit	CXC5732	CXC5734
*	31	Badge	CAH1925	CAH2025
	32	Spacer	CNN1456	Not used

Mark	No.	Description	DEH-P88RS/XN/EW5	DEH-P88RSⅡ/XN/EW5
	1	Detach Grille Assy	CXC5763	CXC9224
	3	Button(EJECT)	CAC9616	CAC9750
	19	Knob Unit(SOURCE,VOLUME)	CXC5740	CXC5742
	20	Knob Unit(MULTI-CONTROL)	CXC5741	CXC5743
	21	Button Unit(EQ,TA)	CXC5744	CXC9204
	22	Button Unit(BAND,DISP)	CXC5748	CXC9208
	24	Sub Grille Assy	CXC5822	CXC9226
	28	Panel	CNR1842	CNR1952
	29	Panel	CNR1846	CNR1957
	30	Grille Unit	CXC5732	CXC5734
*	31	Badge	CAH1925	CAH2025
	32	Spacer	CNN1456	Not used

ELECTRICAL PARTS LIST(Page 61)

TUNER AMP UNIT

Circuit Symbol and No.	Part Name	DEH-P880PRS/XN/UC	DEH-P800PRS/XN/UC
IC201,202,203	IC	NJM2114M	LT1358CS8
IC331	IC	PAL007B	PAL007C
Q331	Transistor	DTC124EU	DTC124EUA
Q431,432	Transistor	2SA1576	2SA1576A
Q521,831,862,921	Transistor	DTC114EU	DTC114EUA
R843		RS1/16S391J	RS1/16S821J
C201,202,203,204,211,212	10 µF/16 V	CCH1532	CCH1717
C213,214,221,222,223,224	10 µF/16 V	CCH1532	CCH1717
C251,351,352,355,356,359,360	10 µF/16 V	CCH1532	CCH1717
C292,293,294,295,296,297		CCH1563(4.7 µF/16 V)	CCH1717(10 µF/16 V)
C335		CCH1547(3 300 µF/16 V)	CCH1810(3 900 µF/16 V)
C713		CEJQ2R2M50	CCH1562(4.7 µF/25 V)

Circuit Symbol and No.	Part Name	DEH-P80RS/XN/ES	DEH-P80RSⅡ/XN/ES
IC201,202,203	IC	NJM2114M	LT1358CS8
IC331	IC	PAL007B	PAL007C
Q331	Transistor	DTC124EU	DTC124EUA
Q431,432	Transistor	2SA1576	2SA1576A
Q521,831,862,921	Transistor	DTC114EU	DTC114EUA
R843		RS1/16S391J	RS1/16S821J
C201,202,203,204,211,212	10 µF/16 V	CCH1532	CCH1717
C213,214,221,222,223,224	10 µF/16 V	CCH1532	CCH1717
C251,351,352,355,356,359,360	10 µF/16 V	CCH1532	CCH1717
C292,293,294,295,296,297		CCH1563(4.7 µF/16 V)	CCH1717(10 µF/16 V)
C335		CCH1547(3 300 µF/16 V)	CCH1810(3 900 µF/16 V)
C713		CEJQ2R2M50	CCH1562(4.7 µF/25 V)

Circuit Symbol and No.	Part Name	DEH-P88RS/XN/EW5	DEH-P88RSⅡ/XN/EW5
IC201,202,203	IC	NJM2114M	LT1358CS8
IC331	IC	PAL007B	PAL007C
Q331	Transistor	DTC124EU	DTC124EUA
Q401	Transistor	DTC143EU	DTC143EUA
Q431,432	Transistor	2SA1576	2SA1576A
Q831,862,921	Transistor	DTC114EU	DTC114EUA
R843		RS1/10SR821J	RS1/16S821J
C201,202,203,204,211,212	10 µF/16 V	CCH1532	CCH1717
C213,214,221,222,223,224	10 µF/16 V	CCH1532	CCH1717
C251,351,352,355,356,359,360	10 µF/16 V	CCH1532	CCH1717
C292,293,294,295,296,297		CCH1563(4.7 µF/16 V)	CCH1717(10 µF/16 V)
C335		CCH1547(3 300 µF/16 V)	CCH1810(3 900 µF/16 V)
C713		CEJQ2R2M50	CCH1562(4.7 µF/25 V)

KEYBOARD UNIT

Circuit Symbol and No.	Part Name	DEH-P880PRS/XN/UC	DEH-P800PRS/XN/UC
Q1833	Transistor	DTC114EU	DTC114EUA

Circuit Symbol and No.	Part Name	DEH-P80RS/XN/ES	DEH-P80RSⅡ/XN/ES
Q1833	Transistor	DTC114EU	DTC114EUA

Circuit Symbol and No.	Part Name	DEH-P88RS/XN/EW5	DEH-P88RSⅡ/XN/EW5
Q1833	Transistor	DTC114EU	DTC114EUA

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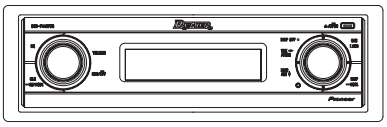
Service Manual



DEH-P880PRS/XN/UC

ORDER NO.
CRT3650

MULTI-CD CONTROL HIGH POWER CD/MP3/WMA/AAC PLAYER WITH FM/AM TUNER

DEH-P880PRS/XN/UC
DEH-P80RS/XN/ES

MULTI-CD CONTROL DSP HIGH POWER CD/MP3/WMA/AAC PLAYER WITH RDS TUNER

DEH-P88RS/XN/EW5

This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech.Module	Remarks
CX-3164	CRT3583	S10.5COMP1	CD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly

For details, refer to "Important Check Points for Good Servicing".

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
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ⓒ**PIONEER CORPORATION 2006**

Z-ZZW. MAR. 2006 Printed in Japan

SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

● **Safety Precautions for those who Service this Unit.**

- **When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.**

Caution:

1. **During repair or tests, minimum distance of 13cm from the focus lens must be kept.**
2. **During repair or tests, do not view laser beam for 10 seconds or longer.**

CAUTION:
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION
This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.
Refer all servicing to qualified personnel.

The following caution label appears on your unit.

Location: on the bottom of the unit

WARNING!

The AEL (accessible emission level)of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.
A specially instructed person should do servicing operation of the apparatus.

Laser diode characteristics

Wave length : 785~814nm

Maximum output : 1190μW(Emitting period : unlimited)

Additional Laser Caution

Transistors Q101 in PCB drive the laser diodes.
When Q101 is shorted between their terminals, the laser diodes will radiate beam.
If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

● Service Precautions

1. You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.
2. This product memorizes every audio setting value during operating product such as VOL position and EQ setting. As the setting value is recorded in the built-in EEPROM, it does not return to the initial setting value even if you press RESET key.
   If you return it to the initial setting value, execute the Audio Reset in the initial setting menu.
   However, if you execute it, the user setting is deleted.
   If you change the audio setting when repairing the product, the product is returned to the user with that setting, so take care of it.

   Method of Audio Reset
   After pressing MULTI-CONTROL key for two seconds, select Audio Reset by right and left rotation.
   After shifting to the reset confirmation screen by right-pressing MULTI-CONTROL key and execute the reset by center-pressing.

● CD Section Precaution

1. Before disassembling the unit, be sure to turn off the power. Unplugging and plugging the connectors during power-on mode may damage the ICs inside the unit.
2. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) by referring to "the DISASSEMBLY".
3. After replacing the pickup unit, be sure to check the grating.

COMPACT disc DIGITAL AUDIO

COMPACT disc DIGITAL AUDIO TEXT

Plays Windows Media™

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety

Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments

To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts

Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning

For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws

To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

CONTENTS

1. SPECIFICATIONS

● DEH-P880PRS/XN/UC

General

Power source ..... 14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 10.0 A
Backup current ..... 5 mA or less
Dimensions (W × H × D):
- DIN
  - Chassis ..... 178 × 50 × 159 mm (7 × 2 × 6-1/4 in.)
  - Nose ..... 188 × 58 × 30 mm (7-3/8 × 2-1/4 × 1-1/8 in.)
- D
  - Chassis ..... 178 × 50 × 164 mm (7 × 2 × 6-1/2 in.)
  - Nose ..... 170 × 45 × 25 mm (6-3/4 × 1-3/4 × 1 in.)

Weight ..... 1.6 kg (3.5 lbs)

Audio/DSP

Maximum power output ..... 50 W × 4
Continuous power output ... 22 W × 4 (50 Hz to 15 000 Hz, 5% THD, 4 Ω load, both channels driven)
Load impedance ..... 4 Ω (4 Ω to 8 Ω allowable)
Preout max output level/output impedance 5.0 V/100Ω
Loudness contour ..... +10 dB (100 Hz), +6.5 dB (10 kHz) (volume: –30 dB)
Equalizer (Left/Right independent 16-Band Graphic Equalizer):
- Frequency ..... 20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
- Equalization range ..... ±12 dB (2 dB step)

Auto equalizer:
(Front & rear & subwoofer/High & mid & low)
- Frequency ..... 20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
- Equalization range ..... +6 to –12 dB (2 dB step)

Network (standard mode):
- HPF (Front/rear):
  - Frequency ..... 50/63/80/100/125/160/200 Hz
  - Slope ..... 0 (Pass)/–6/–12 dB/oct
  - Gain ..... 0 to –24 dB/Mute (1 dB step)
- Subwoofer (stereo/mono):
  - Frequency ..... 50/63/80/100/125/160/200 Hz
  - Slope ..... –6/–12/–18 dB/oct
  - Gain ..... +6 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse

Network (3-way network mode):
- High HPF:
  - Frequency ..... 1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
  - Slope ..... –6/–12/–18/–24 dB/oct
  - Gain ..... 0 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse
- Mid HPF/LPF:
  - Frequency (LPF) ... 1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
  - Frequency (HPF) ..... 25/31.5/40/50/63/80/100/125/160/200/250 Hz
  - Slope (LPF) ..... 0 (Pass)/–6/–12/–18/–24 dB/oct
  - Slope (HPF) ..... 0 (Pass)/–6/–12/–18/–24 dB/oct
  - Gain ..... 0 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse
- Low LPF (stereo/mono):
  - Frequency ..... 25/31.5/40/50/63/80/100/125/160/200/250 Hz
  - Slope ..... –12/–18/–24/–30/–36 dB/oct
  - Gain ..... +6 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse

CD player

System ..... Compact disc audio system
Usable discs ..... Compact disc
Signal format:
- Sampling frequency ..... 44.1 kHz
- Number of quantization bits ..... 16; linear

Frequency characteristics ... 5 Hz to 20 000 Hz (±1 dB)
Signal-to-noise ratio ..... 105 dB (1 kHz) (IHF-A network)
Dynamic range ..... 100 dB (1 kHz)
Number of channels ..... 2 (stereo)
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10 (2ch audio)
(Windows Media Player)

AAC decoding format ..... MPEG-4 AAC (iTunes® encoded only)
WAV signal format ..... Linear PCM & MS ADPCM

FM tuner

Frequency range ..... 87.9 MHz to 107.9 MHz
Usable sensitivity ..... 8 dBf (0.7 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity ..... 10 dBf (0.9 μV/75 Ω, mono)
Signal-to-noise ratio ..... 75 dB (IHF-A network)
Distortion ..... 0.3 % (at 65 dBf, 1 kHz, stereo)
0.05 % (at 65 dBf, 1 kHz, mono)
Frequency response ..... 30 Hz to 15 000 Hz (±3 dB)
Stereo separation ..... 45 dB (at 65 dBf, 1 kHz)
Selectivity ..... 80 dB (±200 kHz)
Three-signal intermodulation (desired signal level) ..... 30 dBf (two undesired signal level: 100 dBf)

AM tuner

Frequency range ..... 530 kHz to 1 710 kHz (10 kHz)
Usable sensitivity ..... 18 μV (S/N: 20 dB)
Signal-to-noise ratio ..... 67 dB (IHF-A network)

Note

Specifications and the design are subject to possible modifications without notice due to improvements.

● DEH-P88RS/XN/EW5

General

Power source ..... 14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system ..... Negative type
Max. current consumption ..... 10.0 A
Backup current ..... 5 mA or less
Dimensions (W × H × D):
- DIN
  - Chassis ..... 178 × 50 × 159 mm
  - Nose ..... 188 × 58 × 30 mm
- D
  - Chassis ..... 178 × 50 × 164 mm
  - Nose ..... 170 × 45 × 25 mm

Weight ..... 1.6 kg

Audio/DSP

Maximum power output ..... 50 W × 4
Continuous power output ... 27 W × 4 (DIN 45324, +B=14.4 V)
Load impedance ..... 4 Ω (4 Ω to 8 Ω allowable)
Preout max output level/output impedance 5.0 V/100Ω
Loudness contour ..... +10 dB (100 Hz), +6.5 dB (10 kHz) (volume: –30 dB)
Equalizer (Left/Right independent 16-Band Graphic Equalizer):
- Frequency ..... 20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
- Equalization range ..... ±12 dB (2 dB step)

Auto equalizer:
- (Front & rear & subwoofer/High & mid & low)
- Frequency ..... 20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
- Equalization range ..... +6 to –12 dB (2 dB step)

Network (standard mode):
- HPF (Front/rear):
  - Frequency ..... 50/63/80/100/125/160/200 Hz
  - Slope ..... 0 (Pass)/–6/–12 dB/oct
  - Gain ..... 0 to –24 dB/Mute (1 dB step)
- Subwoofer (stereo/mono):
  - Frequency ..... 50/63/80/100/125/160/200 Hz
  - Slope ..... –6/–12/–18 dB/oct
  - Gain ..... +6 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse

Network (3-way network mode):
- High HPF:
  - Frequency ..... 1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
  - Slope ..... –6/–12/–18/–24 dB/oct
  - Gain ..... 0 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse
- Mid HPF/LPF:
  - Frequency (LPF) ... 1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
  - Frequency (HPF) ..... 25/31.5/40/50/63/80/100/125/160/200/250 Hz
  - Slope (LPF) ..... 0 (Pass)/–6/–12/–18/–24 dB/oct
  - Slope (HPF) ..... 0 (Pass)/–6/–12/–18/–24 dB/oct
  - Gain ..... 0 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse
- Low LPF (stereo/mono):
  - Frequency ..... 25/31.5/40/50/63/80/100/125/160/200/250 Hz
  - Slope ..... –12/–18/–24/–30/–36 dB/oct
  - Gain ..... +6 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse

CD player

System ..... Compact disc audio system
Usable discs ..... Compact disc
Signal format:
- Sampling frequency ..... 44.1 kHz
- Number of quantization bits ..... 16; linear

Frequency characteristics ... 5 Hz to 20 000 Hz (±1 dB)
Signal-to-noise ratio ..... 105 dB (1 kHz) (IEC-A network)
Dynamic range ..... 100 dB (1 kHz)
Number of channels ..... 2 (stereo)
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10 (2ch audio) (Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes® encoded only)
WAV signal format ..... Linear PCM & MS ADPCM

FM tuner

Frequency range ..... 87.5 MHz to 108.0 MHz

Usable sensitivity	8 dBf (0.7 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	10 dBf (0.9 μV/75 Ω, mono)
Signal-to-noise ratio	75 dB (IEC-A network)
Distortion	0.3 % (at 65 dBf, 1 kHz, stereo) 0.05 % (at 65 dBf, 1 kHz, mono)
Frequency response	30 Hz to 15 000 Hz (±3 dB)
Stereo separation	45 dB (at 65 dBf, 1 kHz)
Selectivity	80 dB (±200 kHz)

MW tuner

Frequency range	531 kHz to 1 602 kHz (9 kHz)
Usable sensitivity	18 μV (S/N: 20 dB)
Signal-to-noise ratio	67 dB (IEC-A network)

LW tuner

Frequency range	153 kHz to 281 kHz
Usable sensitivity	30 μV (S/N: 20 dB)
Signal-to-noise ratio	67 dB (IEC-A network)

Note

Specifications and the design are subject to possible modifications without notice due to improvements. ■

● DEH-P80RS/XN/ES

General

Rated power source ..... 14.4 V DC (allowable voltage range: 12.0 V to 14.4 V DC)
Grounding system ..... Negative type
Max. current consumption ..... 10.0 A
Backup current ..... 5 mA or less
Dimensions (W × H × D):
- DIN
  - Chassis ..... 178 × 50 × 159 mm
  - Nose ..... 188 × 58 × 30 mm
- D
  - Chassis ..... 178 × 50 × 164 mm
  - Nose ..... 170 × 45 × 25 mm

Weight ..... 1.6 kg

Audio/DSP

Maximum power output ..... 50 W × 4
Continuous power output ... 22 W × 4 (50 Hz to 15 000 Hz, 5% THD, 4 Ω load, both channels driven)
Load impedance ..... 4 Ω (4 Ω to 8 Ω allowable)
Preout max output level/output impedance 5.0 V/100Ω
Loudness contour ..... +10 dB (100 Hz), +6.5 dB (10 kHz) (volume: –30 dB)
Equalizer (Left/Right independent 16-Band Graphic Equalizer):
- Frequency ..... 20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
- Equalization range ..... ±12 dB (2 dB step)

Auto equalizer:
(Front & rear & subwoofer/High & mid & low)
- Frequency ..... 20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
- Equalization range ..... +6 to –12 dB (2 dB step)

Network (standard mode):
- HPF (Front/rear):
  - Frequency ..... 50/63/80/100/125/160/200 Hz
  - Slope ..... 0 (Pass)/–6/–12 dB/oct
  - Gain ..... 0 to –24 dB/Mute (1 dB step)
- Subwoofer (stereo/mono):
  - Frequency ..... 50/63/80/100/125/160/200 Hz
  - Slope ..... –6/–12/–18 dB/oct
  - Gain ..... +6 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse

Network (3-way network mode):
- High HPF:
  - Frequency ..... 1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
  - Slope ..... –6/–12/–18/–24 dB/oct
  - Gain ..... 0 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse
- Mid HPF/LPF:
  - Frequency (LPF) ... 1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
  - Frequency (HPF) ..... 25/31.5/40/50/63/80/100/125/160/200/250 Hz
  - Slope (LPF) ..... 0 (Pass)/–6/–12/–18/–24 dB/oct
  - Slope (HPF) ..... 0 (Pass)/–6/–12/–18/–24 dB/oct
  - Gain ..... 0 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse
- Low LPF (stereo/mono):
  - Frequency ..... 25/31.5/40/50/63/80/100/125/160/200/250 Hz
  - Slope ..... –12/–18/–24/–30/–36 dB/oct
  - Gain ..... +6 to –24 dB/Mute (1 dB step)
  - Phase ..... Normal/Reverse

CD player

System ..... Compact disc audio system
Usable discs ..... Compact disc
Signal format:
- Sampling frequency ..... 44.1 kHz
- Number of quantization bits ..... 16; linear

Frequency characteristics ... 5 Hz to 20 000 Hz (±1 dB)
Signal-to-noise ratio ..... 105 dB (1 kHz) (IHF-A network)
Dynamic range ..... 100 dB (1 kHz)
Number of channels ..... 2 (stereo)
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10 (2ch audio) (Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes® encoded only)
WAV signal format ..... Linear PCM & MS ADPCM

FM tuner

Frequency range	87.5 MHz to 108.0 MHz
Usable sensitivity	8 dBf (0.7 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	10 dBf (0.9 μV/75 Ω, mono)
Signal-to-noise ratio	75 dB (IHF-A network)
Distortion	0.3 % (at 65 dBf, 1 kHz, stereo) 0.05 % (at 65 dBf, 1 kHz, mono)
Frequency response	30 Hz to 15 000 Hz (±3 dB)
Stereo separation	45 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range	531 kHz to 1 602 kHz (9 kHz) 530 kHz to 1 640 kHz (10 kHz)
Usable sensitivity	18 μV (S/N: 20 dB)
Signal-to-noise ratio	67 dB (IHF-A network)

Infrared remote control

Wavelength	940 nm ±50 nm
Output	typ; 12 mw/sr per Infrared LED

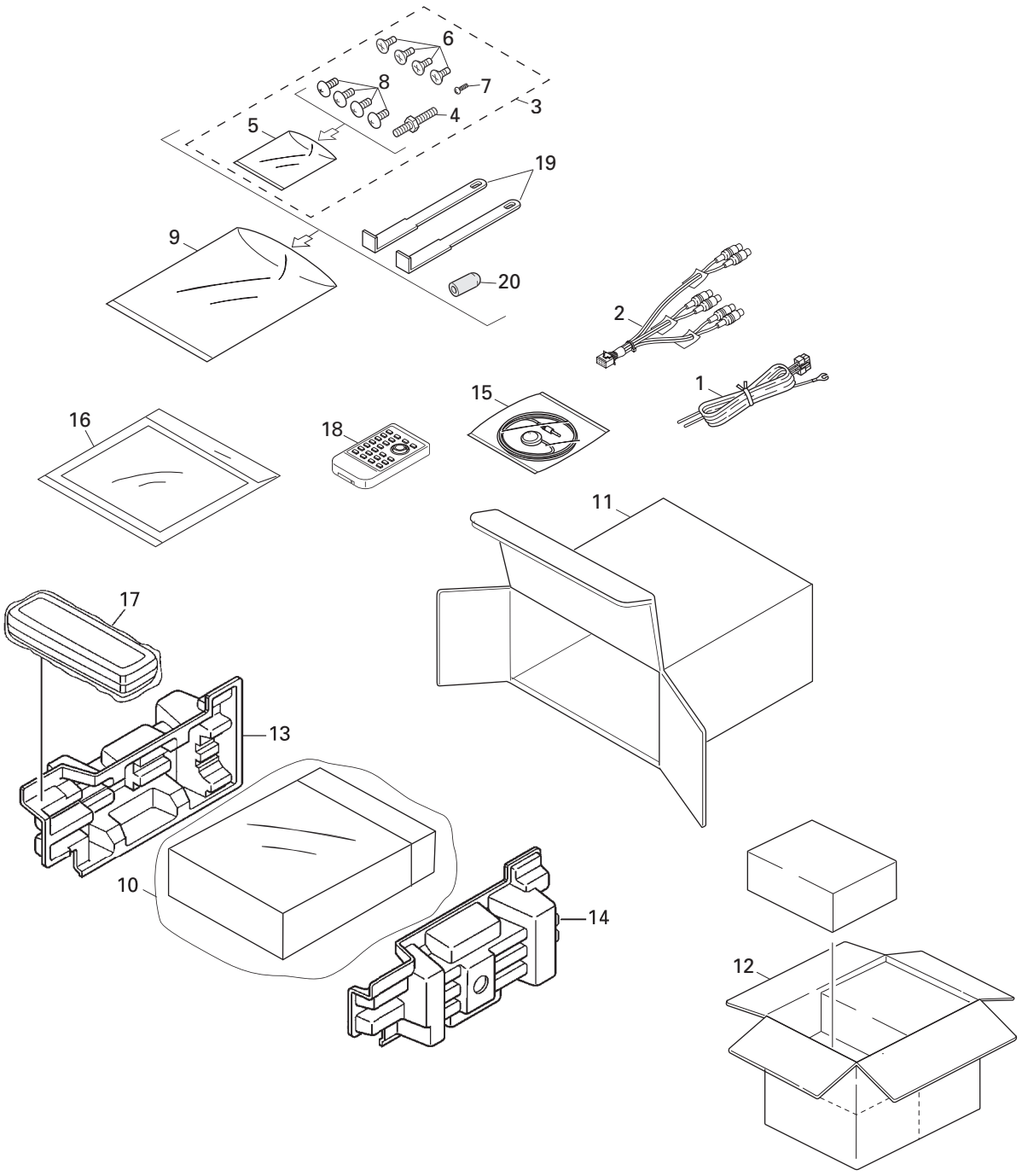
Note

Specifications and the design are subject to possible modifications without notice due to improvements. ▣

2. EXPLODED VIEWS AND PARTS LIST

*NOTES : • Parts marked by " * " are generally unavailable because they are not in our Master Spare Parts List.*
• The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
• Screw adjacent to▽mark on the product are used for disassembly.
• For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions,apply as you think it appropriate.)

2.1 PACKING(UC, ES MODEL)



(1) PACKING(UC, ES MODEL) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Cord Assy	CDE7701
	2	Cord Assy	CDE8275
	3	Screw Assy	See Contrast table(2)
	4	Screw	CBA1650
*	5	Polyethylene Bag	CEG-127
	6	Screw	CRZ50P090FTC
	7	Screw	See Contrast table(2)
	8	Screw	TRZ50P080FTC
*	9	Polyethylene Bag	CEG-158
	10	Polyethylene Bag	See Contrast table(2)
	11	Carton	See Contrast table(2)
	12	Contain Box	See Contrast table(2)
	13	Protector	XHP7007
	14	Protector	XHP7008
	15	Microphone Assy	CPM1054
	16-1	Polyethylene Bag	CEG1116
	16-2	Owner's Manual	See Contrast table(2)
	16-3	Owner's Manual	See Contrast table(2)
	16-4	Owner's Manual	See Contrast table(2)
	16-5	Installation Manual	See Contrast table(2)
	16-6	Caution Card	CRP1310
*	16-7	Warranty Card	See Contrast table(2)
*	16-8	Caution Card	XRP7002
	17	Case Assy	CXB3520
	18	Remote Control Unit	CXC5717
	19	Handle	CNC5395
	20	Bush	CNV3930

(2) CONTRAST TABLE

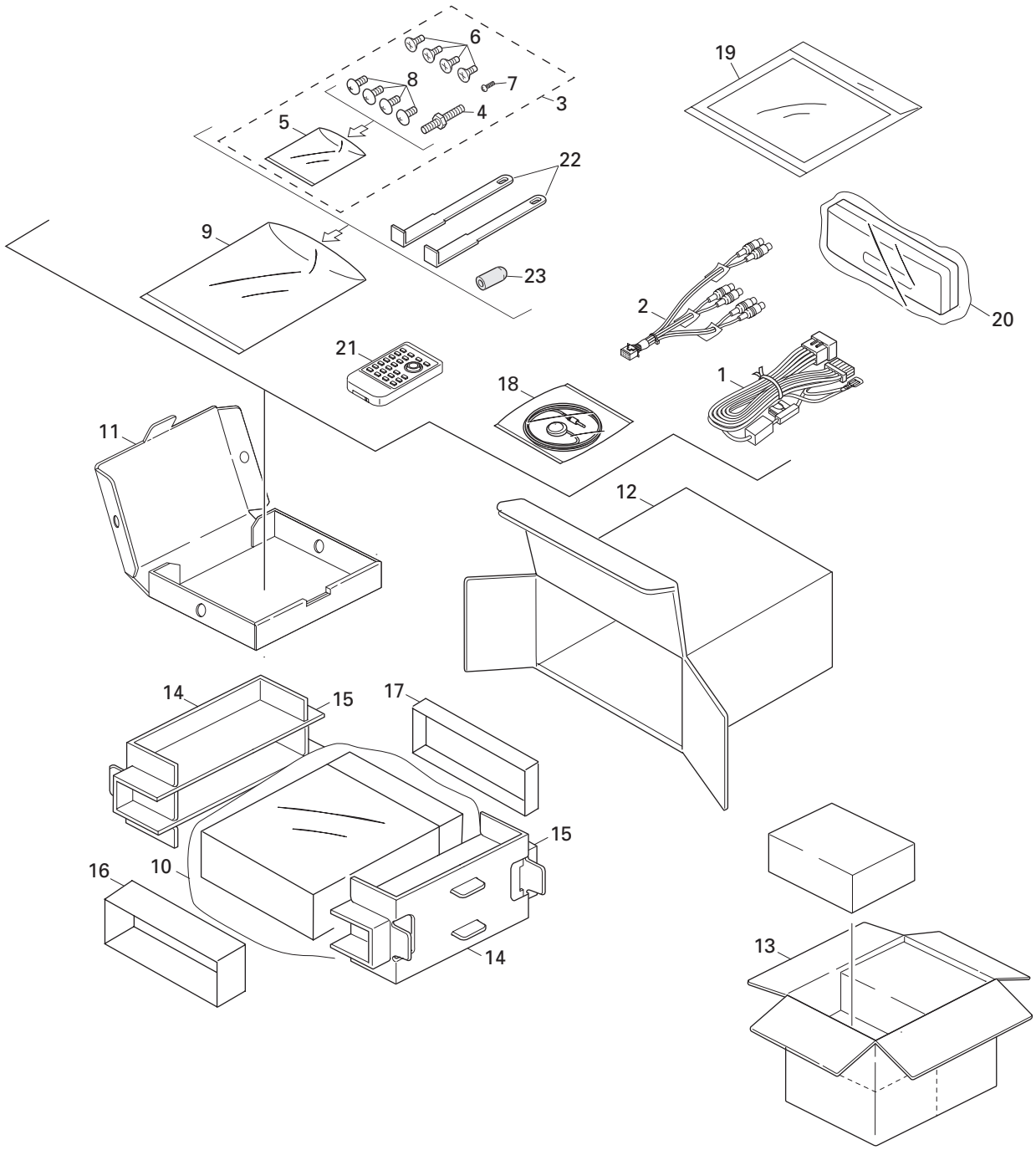
DEH-P880PRS/XN/UC and DEH-P80RS/XN/ES are constructed the same except for the following:

Mark	No.	Description	DEH-P880PRS/XN/UC	DEH-P80RS/XN/ES
	3	Screw Assy	CEA5322	CEA3849
	7	Screw	JPZ20P060FTB	Not used
	10	Polyethylene Bag	CEG1368	CEG1227
	11	Carton	CHG5735	CHG5736
	12	Contain Box	CHL5735	CHL5736
	16-2	Owner's Manual	CRD4080	CRD4082
	16-3	Owner's Manual	Not used	CRD4083
	16-4	Owner's Manual	Not used	CRB2177
	16-5	Installation Manual	CRD4081	CRD4084
*	16-7	Warranty Card	CRY1070	Not used

Owner's Manual,Installation Manual

Part No.	Language
CRD4080	English, French
CRD4081	English, French
CRD4082	English, Spanish
CRD4083	Portuguese(B), Traditional Chinese
CRB2177	Arabic
CRD4084	English, Spanish, Portuguese(B), Traditional Chinese, Arabic

2.2 PACKING(EW5 MODEL)



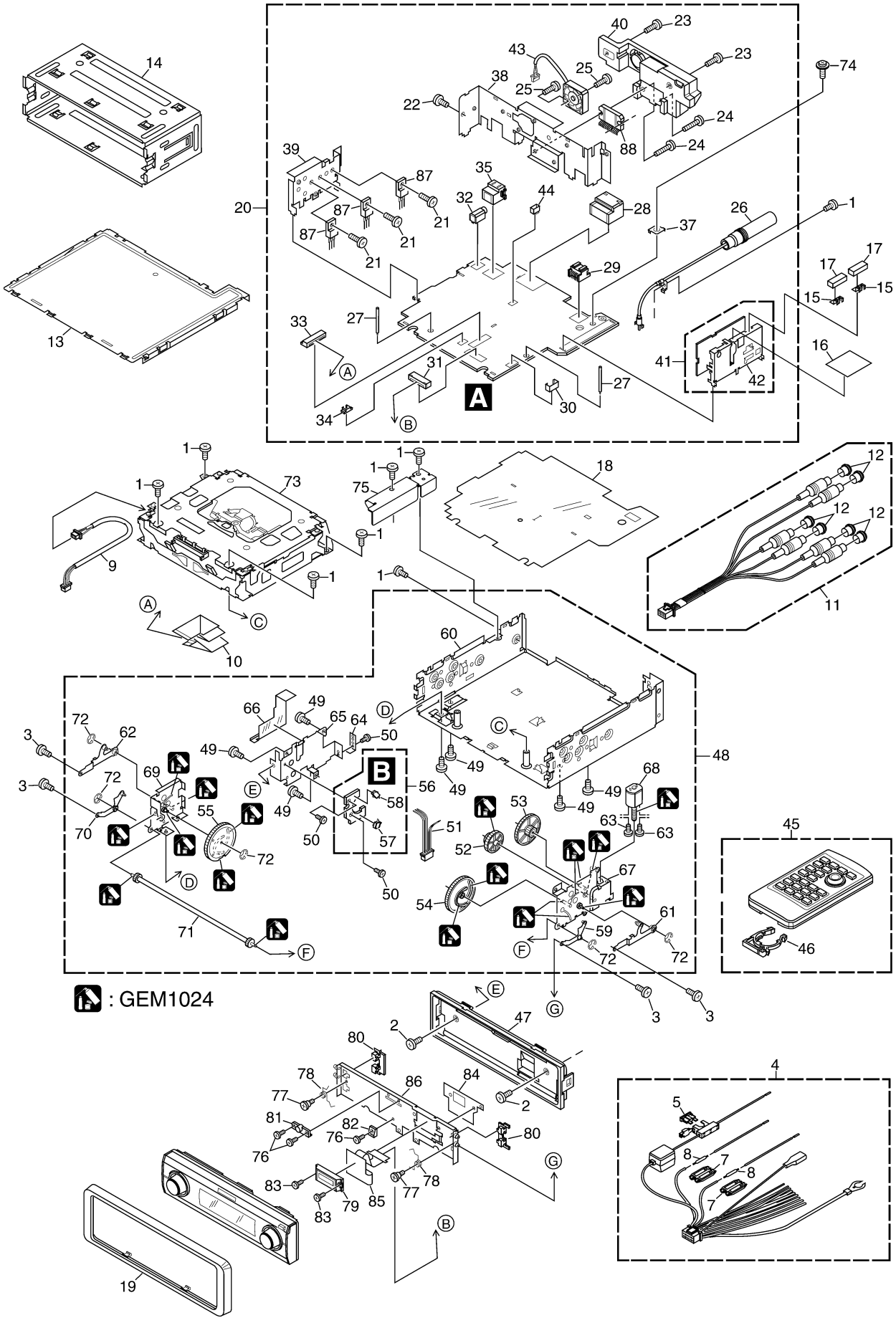
(1)PACKING(EW5 MODEL) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Cord Assy	CDE6562
	2	Cord Assy	CDE8274
	3	Screw Assy	CEA5322
	4	Screw	CBA1650
*	5	Polyethylene Bag	CEG-127
	6	Screw	CRZ50P090FTC
	7	Screw	JPZ20P060FTB
	8	Screw	TRZ50P080FTC
*	9	Polyethylene Bag	CEG-158
	10	Polyethylene Bag	CEG-162
	11	Sub Carton	CHG5195
	12	Carton	CHG5882
	13	Contain Box	CHL5882
	14	Protector	CHP2797
	15	Protector	CHP2798
	16	Protector	CHP2812
	17	Protector	CHP3184
	18	Microphone Assy	CPM1054
*	19-1	Polyethylene Bag	E36-634
	19-2	Owner's Manual	CRB2176
	19-3	Owner's Manual	CRD4076
	19-4	Owner's Manual	CRD4077
	19-5	Owner's Manual	CRD4078
	19-6	Installation Manual	CRD4079
*	19-7	Caution Card	CRP1335
*	19-8	Passport	CRY1013
*	19-9	Warranty Card	CRY1157
	20	Case Assy	CXB3520
	21	Remote Control Unit	CXC5717
	22	Handle	CNC5395
	23	Bush	CNV3930

Owner's Manual,Installation Manual

Part No.	Language
CRD4076	English, Spanish
CRD4077	German, French
CRD4078	Italian, Dutch
CRB2176	Russian
CRD4079	English, Spanish, German, French, Italian, Dutch, Russian

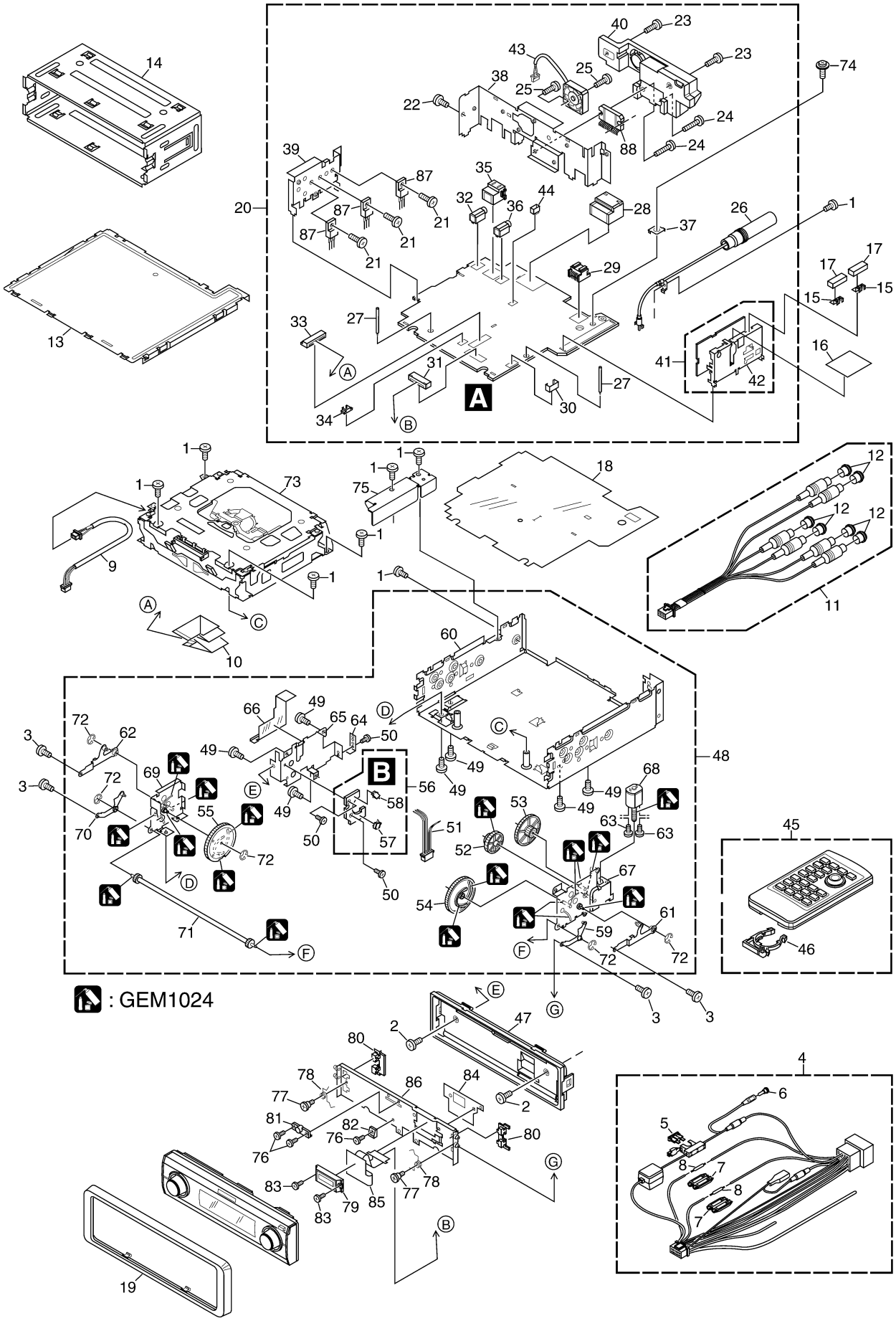
2.3 EXTERIOR(1)(UC, ES MODEL)



EXTERIOR(1)(UC, ES MODEL) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BSZ26P060FTC
	2	Screw(M2.6 x 4)	CBA1828
	3	Screw(M2 x 2.5)	CBA1924
	4	Cord Assy	CDE7701
⚠	5	Fuse(10 A)	CEK1136
	6	•••••	
	7	Cap	CNS1472
	8	Resistor	RS1/2PMF102J
	9	Cord Assy	CDE7817
	10	Cable	CDE8067
	11	Cord Assy	CDE8275
	12	Cap	CNV6727
	13	Case Assy	CXC6908
	14	Holder	CNC8659
	15	Earth Plate	CND2171
	16	Insulator	CNM8790
	17	Cushion	CNM9126
	18	Insulator	CNM9936
	19	Panel	CNS8516
	20	Tuner Amp Unit(UC)	CWN1478
		Tuner Amp Unit(ES)	CWN1479
	21	Screw	ASZ26P060FTC
	22	Screw	BMZ26P040FTC
	23	Screw	BMZ26P120FTC
	24	Screw	BMZ26P180FTC
	25	Screw(M2.6 x 14)	CBA1632
	26	Antenna Cable	CDH1336
	27	Clamper	CEF1040
	28	Plug(CN901)	CKM1278
	29	Connector(CN351)	CKM1389
	30	Plug(CN871)	CKS-786
	31	Connector(CN471)	CKS3834
	32	Connector(CN581)(UC)	CKS4124
	33	Connector(CN801)	CKS4811
	34	Connector(CN472)	CKS4822
	35	Connector(CN101)	CKS5271
	36	•••••	
	37	Holder(CN402)	CNC5399
	38	Holder(UC)	CND3158
		Holder(ES)	CND3159
	39	Holder	CND3133
	40	Heat Sink	CNR1837
	41	FM/AM Tuner Unit(Y401)	CWE1802
	42	Holder	CND2144
	43	Fan Motor	CXM1288
	44	Connector(CN591)	VKN1928
	45	Remote Control Unit	CXC5717
	46	Cover	CZN5357
	47	Panel Unit	CXC5737
	48	Drive Unit	CXC6620
	49	Screw	BMZ26P040FTC
	50	Screw(M2 x 2)	CBA1871
	51	Cord	CDE7392
	52	Gear	CNV7752
	53	Gear	CNV7753
	54	Gear	CNV7754
	55	Gear	CNV7755
	56	Switch Unit	CWS1389
	57	Switch(S1)	CSN1051
	58	Spring Switch(S2)	CSN1052
	59	Arm Unit	CXC2199
*	60	Chassis Unit	CXC5680
	61	Arm Unit	CXC6623
	62	Arm Unit	CXC6624
	63	Screw	JFZ20P020FTC
	64	Spring	XBL7003
*	65	Holder	XNC7017
*	66	Insulator	XNM7119
*	67	Holder Unit	XXA7399
*	68	Motor Unit(M10)	XXA7400
*	69	Holder Unit	XXA7401
*	70	Arm Unit	XXA7403
*	71	Gear Unit	XXA7424
	72	Washer	YE15FTC
	73	CD Mechanism Module(S10.5)	CXK5753
	74	Screw	ISS26P055FTC
	75	Holder	CND3606
	76	Screw(M2 x 2)	CBA1871
	77	Screw	CBA1935
	78	Spring	CBH2530
	79	Connector	CKS5273
	80	Arm	CNV6962
	81	Guide	CNV6967
	82	Guide	CNV8048
	83	Screw(M2 x 3.5)	XBA7002
	84	Holder	XNC7019
	85	Flexible PCB	XNP7026
	86	Case Unit	XXA7426
	87	Transistor(Q462,701,711)	2SD2396
	88	IC(IC331)	PAL007B

2.4 EXTERIOR(1)(EW5 MODEL)

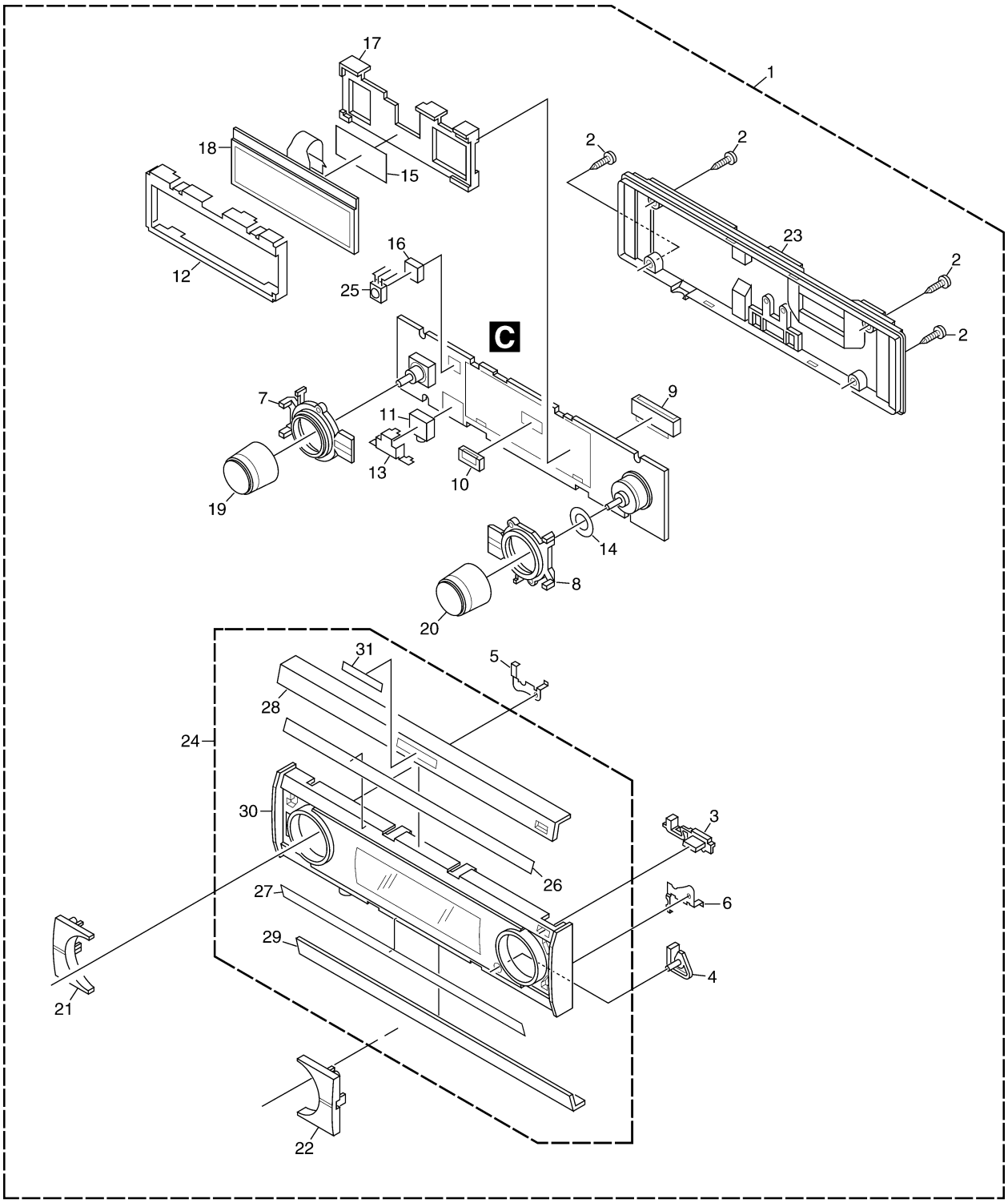


EXTERIOR(1)(EW5 MODEL) SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BSZ26P060FTC
	2	Screw(M2.6 x 4)	CBA1828
	3	Screw(M2 x 2.5)	CBA1924
	4	Cord Assy	CDE6562
⚠	5	Fuse(10 A)	CEK1136
	6	Cap	CKX-003
	7	Cap	CNS1472
	8	Resistor	RS1/2PMF102J
	9	Cord Assy	CDE7817
	10	Cable	CDE8067
	11	Cord Assy	CDE8274
	12	Cap	CNV6727
	13	Case Assy	CXC6908
	14	Holder	CNC8659
	15	Earth Plate	CND2171
	16	Insulator	CNM8790
	17	Cushion	CNM9126
	18	Insulator	CNM9936
	19	Panel	CNS8516
	20	Tuner Amp Unit	CWN1477
	21	Screw	ASZ26P060FTC
	22	Screw	BMZ26P040FTC
	23	Screw	BMZ26P120FTC
	24	Screw	BMZ26P180FTC
	25	Screw(M2.6 x 14)	CBA1632
	26	Antenna Cable	CDH1336
	27	Clamper	CEF1040
	28	Plug(CN901)	CKM1278
	29	Connector(CN351)	CKM1389
	30	Plug(CN871)	CKS-786
	31	Connector(CN471)	CKS3834
	32	Connector(CN581)	CKS4124
	33	Connector(CN801)	CKS4811
	34	Connector(CN472)	CKS4822
	35	Connector(CN101)	CKS5271
	36	Connector(CN541)	CKS5523
	37	Holder(CN402)	CNC5399
	38	Holder	CND3129
	39	Holder	CND3133
	40	Heat Sink	CNR1837
	41	FM/AM Tuner Unit(Y401)	CWE1801
	42	Holder	CND2144
	43	Fan Motor	CXM1288
	44	Connector(CN591)	VKN1928
	45	Remote Control Unit	CXC5717
	46	Cover	CZN5357
	47	Panel Unit	CXC5737
	48	Drive Unit	CXC6620
	49	Screw	BMZ26P040FTC

Mark	No.	Description	Part No.
	50	Screw(M2 x 2)	CBA1871
	51	Cord	CDE7392
	52	Gear	CNV7752
	53	Gear	CNV7753
	54	Gear	CNV7754
	55	Gear	CNV7755
	56	Switch Unit	CWS1389
	57	Switch(S1)	CSN1051
	58	Spring Switch(S2)	CSN1052
	59	Arm Unit	CXC2199
*	60	Chassis Unit	CXC5680
	61	Arm Unit	CXC6623
	62	Arm Unit	CXC6624
	63	Screw	JFZ20P020FTC
	64	Spring	XBL7003
*	65	Holder	XNC7017
*	66	Insulator	XNM7119
*	67	Holder Unit	XXA7399
*	68	Motor Unit(M10)	XXA7400
*	69	Holder Unit	XXA7401
*	70	Arm Unit	XXA7403
*	71	Gear Unit	XXA7424
	72	Washer	YE15FTC
	73	CD Mechanism Module(S10.5)	CXK5753
	74	Screw	ISS26P055FTC
	75	Holder	CND3606
	76	Screw(M2 x 2)	CBA1871
	77	Screw	CBA1935
	78	Spring	CBH2530
	79	Connector	CKS5273
	80	Arm	CNV6962
	81	Guide	CNV6967
	82	Guide	CNV8048
	83	Screw(M2 x 3.5)	XBA7002
	84	Holder	XNC7019
	85	Flexible PCB	XNP7026
	86	Case Unit	XXA7426
	87	Transistor(Q462,701,711)	2SD2396
	88	IC(IC331)	PAL007B

2.5 EXTERIOR(2)



(1) EXTERIOR(2) SECTION PARTS LIST

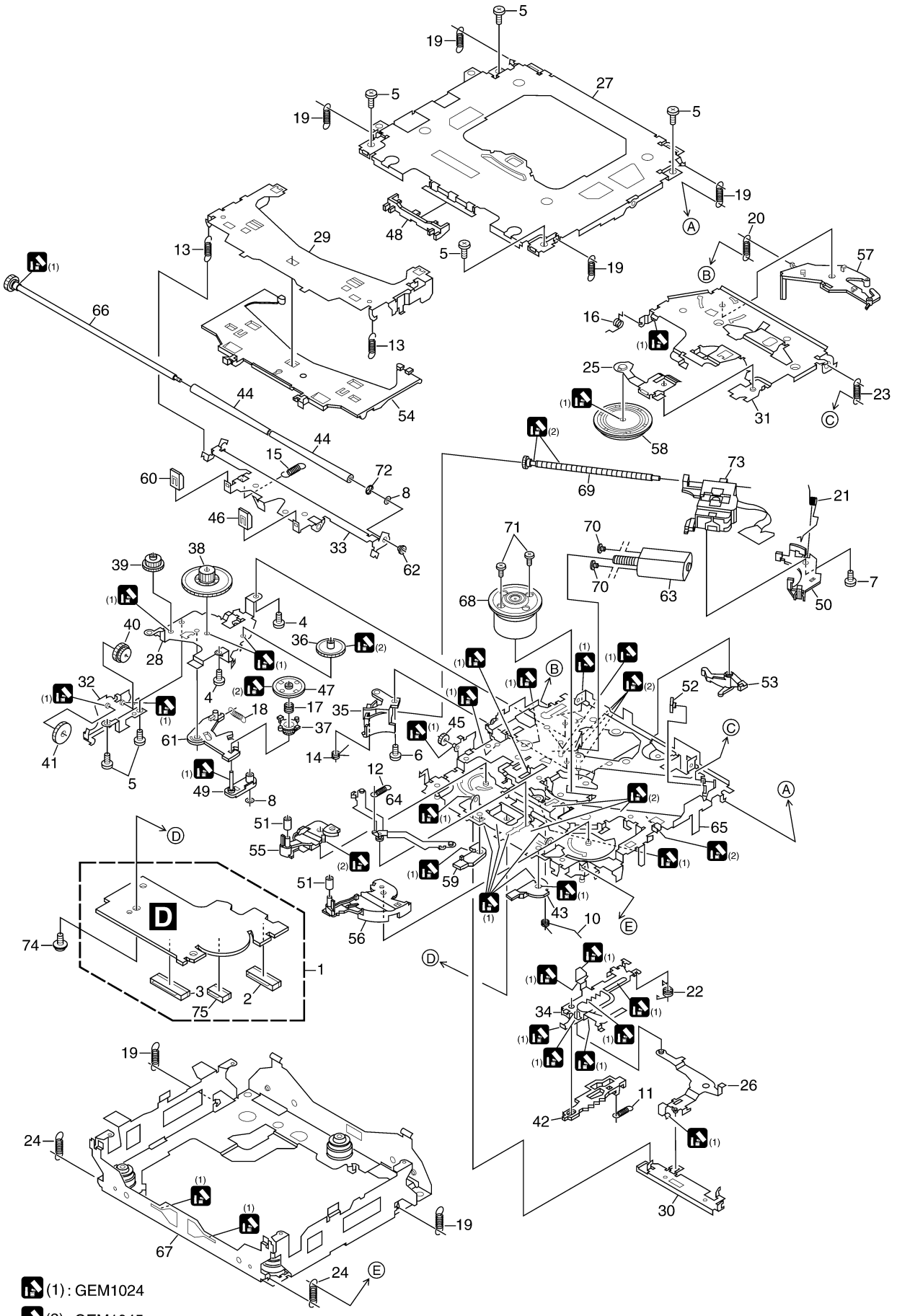
Mark	No.	Description	Part No.
	1	Detach Grille Assy	See Contrast table(2)
	2	Screw	BPZ20P080FTB
	3	Button(EJECT)	CAC9616
	4	Button(RESET)	CAC9617
	5	Earth Plate	CND3149
	6	Earth Plate	CND3150
	7	Lighting Conductor	CNV8923
	8	Lighting Conductor	CNV8924
	9	Connector(CN1801)	CKS5272
	10	Connector(CN1861)	CKS5545
	11	Connector(CN1802)	See Contrast table(2)
	12	Holder	CND3151
	13	Holder	CND3152
	14	Sheet	CNM8658
	15	Double Sided Seal	CNM8673
	16	Cushion	CNM9946
	17	Holder	CNV8925
	18	OEL Unit	MXS8232
	19	Knob Unit(SOURCE,VOLUME)	CXC5740
	20	Knob Unit(MULTI-CONTROL)	CXC5741
	21	Button Unit(EQ/CLK)	See Contrast table(2)
	22	Button Unit(BAND/DISP)	CXC5748
	23	Cover Unit	CXC5749
	24	Sub Grille Assy	See Contrast table(2)
	25	IC(IC1902)	GP1UX51RK
	26	Double Sided Seal	CNM9942
	27	Double Sided Seal	CNM9943
	28	Panel	See Contrast table(2)
	29	Panel	See Contrast table(2)
	30	Grille Unit	CXC5732
*	31	Badge	See Contrast table(2)

(2) CONTRAST TABLE

DEH-P880PRS/XN/UC, DEH-P88RS/XN/EW5 and DEH-P80RS/XN/ES are constructed the same except for the following:

Mark	No.	Description	DEH-P880PRS/XN/UC	DEH-P88RS/XN/EW5	DEH-P80RS/XN/ES
	1	Detach Grille Assy	CXC5764	CXC5763	CXC5765
	11	Connector(CN1802)	CKS5575	CKS3120(Mini Jack)	CKS5575
	21	Button Unit(EQ/CLK)	CXC5745	CXC5744(EQ/TA)	CXC5746
	24	Sub Grille Assy	CXC5823	CXC5822	CXC5824
	28	Panel	CNR1843	CNR1842	CNR1844
	29	Panel	CNR1847	CNR1846	CNR1846
*	31	Badge	CAH1956	CAH1925	CAH1925

2.6 CD MECHANISM MODULE

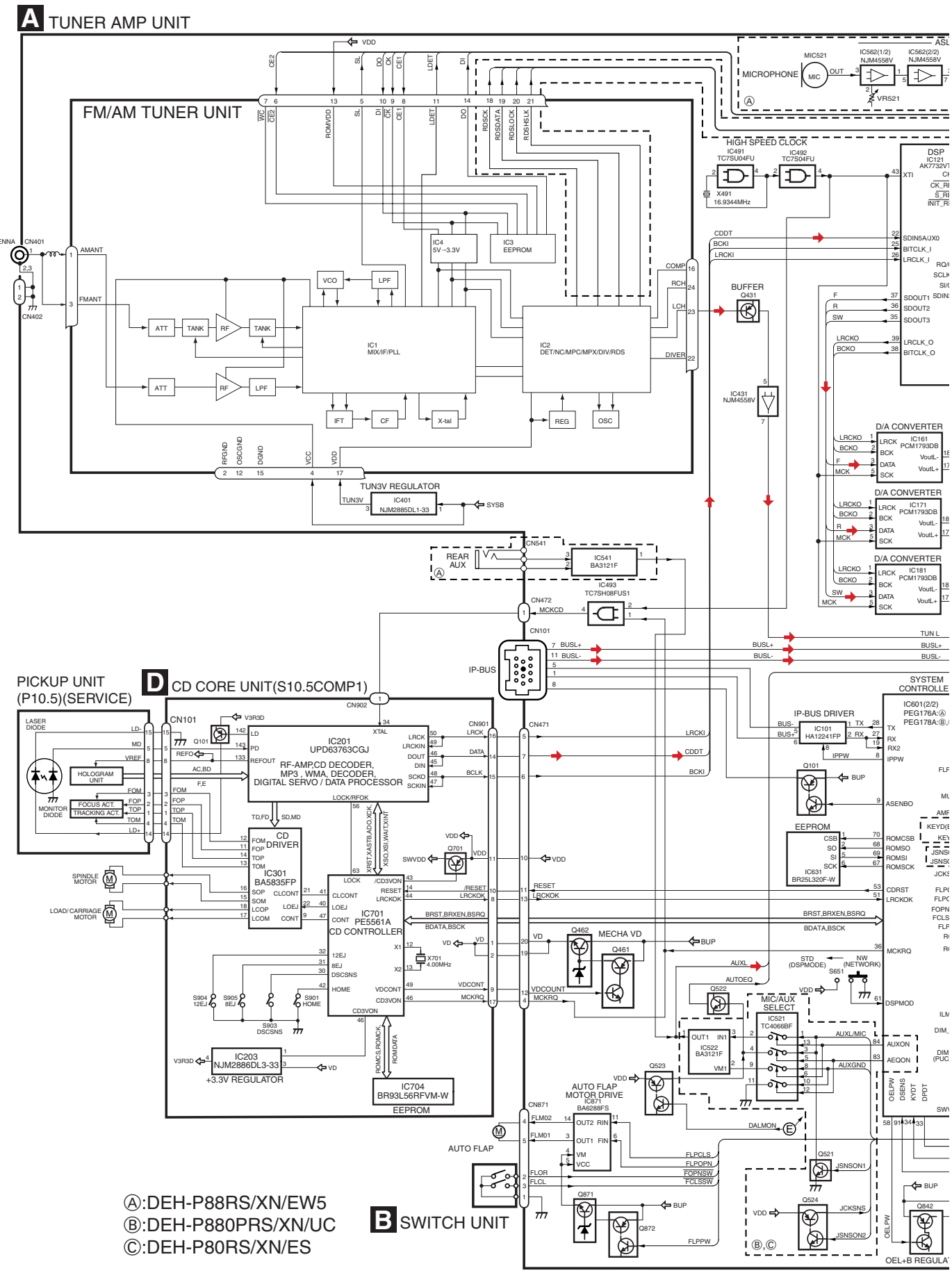


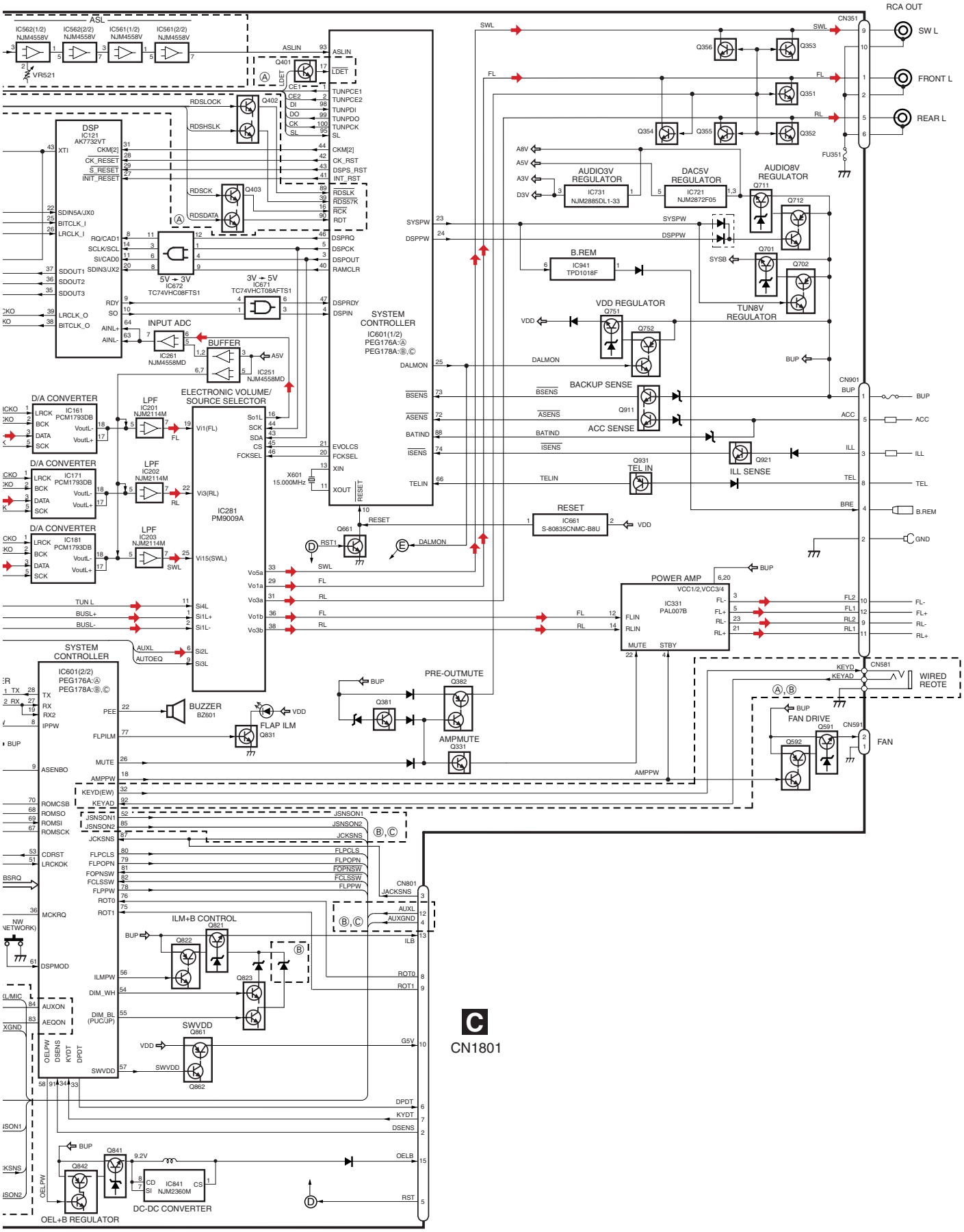
CD MECHANISM MODULE SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	CD Core Unit(S10.5COMP1)	CWX3381
	2	Connector(CN101)	CKS4182
	3	Connector(CN901)	CKS4187
	4	Screw	BMZ20P025FTC
	5	Screw	BSZ20P040FTC
	6	Screw(M2 x 3)	CBA1511
	7	Screw(M2 x 4)	CBA1835
	8	Washer	CBF1038
	9	•••••	
	10	Spring	CBH2609
	11	Spring	CBH2612
	12	Spring	CBH2614
	13	Spring	CBH2616
	14	Spring	CBH2617
	15	Spring	CBH2620
	16	Spring	CBH2855
	17	Spring	CBH2937
	18	Spring	CBH2735
	19	Spring	CBH2854
	20	Spring	CBH2642
	21	Spring	CBH2856
	22	Spring	CBH2857
	23	Spring	CBH2860
	24	Spring	CBH2861
	25	Spring	CBL1686
	26	Arm	CND1909
	27	Frame	CND2582
	28	Bracket	CND2583
	29	Arm	CND2584
	30	Lever	CND2585
	31	Arm	CND2586
	32	Bracket	CND2587
	33	Arm	CND2588
	34	Lever	CND2589
	35	Holder	CNV7201
	36	Gear	CNV7207
	37	Gear	CNV7208
	38	Gear	CNV7209
	39	Gear	CNV7210
	40	Gear	CNV7211
	41	Gear	CNV7212
	42	Rack	CNV7214
	43	Arm	CNV7216
	44	Roller	CNV7218
	45	Gear	CNV7219
	46	Guide	CNV7361
	47	Gear	CNV7595
	48	Guide	CNV7799
	49	Arm	CNV7805
	50	Rack	CNV8342
	51	Roller	CNV8343
	52	Holder	CNV8344
	53	Arm	CNV8345
	54	Guide	CNV8347
	55	Arm	CNV8348
	56	Arm	CNV8349
	57	Arm	CNV8350
	58	Clamper	CNV8365
	59	Arm	CNV8386
	60	Guide	CNV8396
	61	Arm	CNV8413
	62	Collar	CNV8938
	63	Motor Unit(M2)	CXC4026
	64	Arm Unit	CXC4027
	65	Chassis Unit	CXC4028
	66	Gear Unit	CXC4029
	67	Frame Unit	CXC4031
	68	Motor Unit(M1)	CXC6742
	69	Screw Unit	CXC6359
	70	Screw	JFZ20P020FTC
	71	Screw	JGZ17P022FTC
	72	Washer	YE20FTC
	73	Pickup Unit(P10.5)(Service)	CXX1942
	74	Screw	IMS26P030FTC
	75	Connector(CN902)	CKS4979

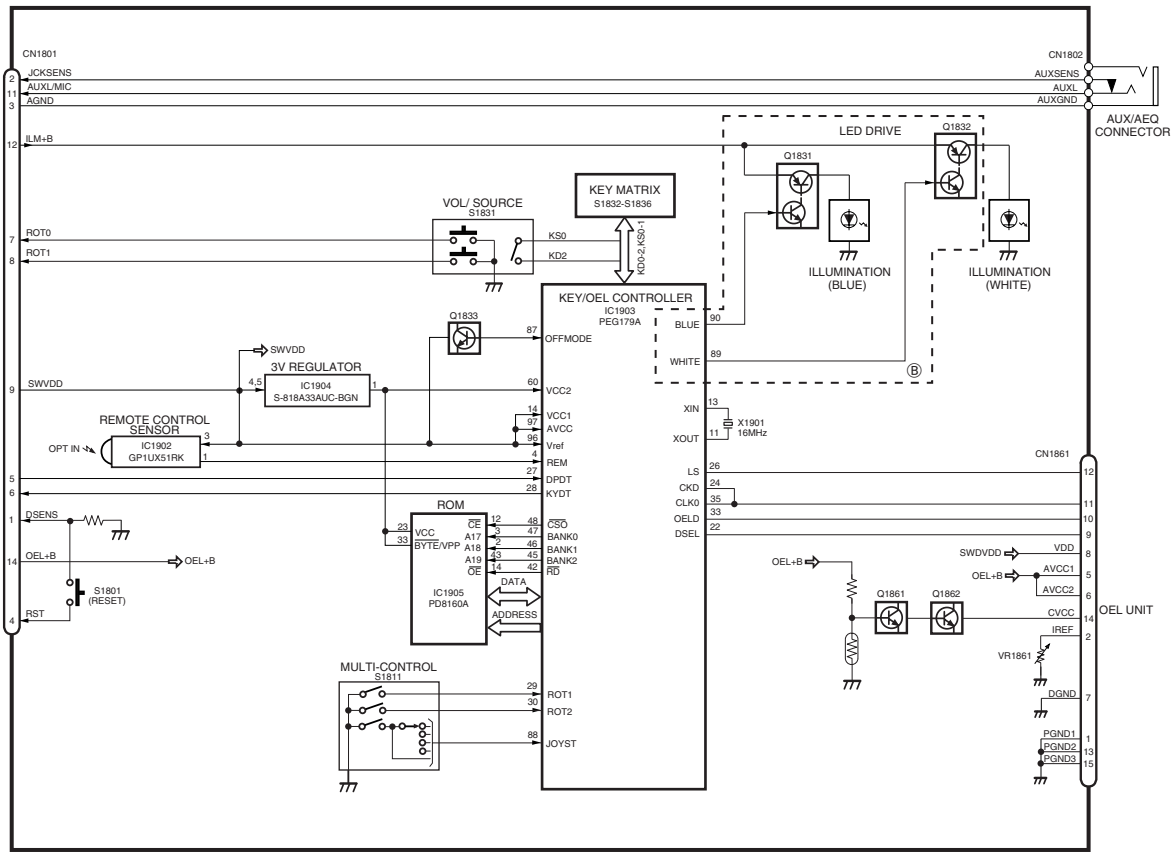
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM




ASL
IC562(1/2) NJM4558V
IC562(2/2) NJM4558V
IC561(1/2) NJM4558V
IC561(2/2) NJM4558V
VR521
ASLIN
LDET
CE1
TUNPCE1
TUNPCE2
TUNPDI
TUNPDO
TUNPCK
SL
CKM[2]
CK_RST
DSPS_RST
INT_RST
RDSLK
RDS57K
RCK
RDT
DSPRQ
DSPCK
DSPOUT
RAMCLR
DSPRDY
DSPIN
DSP
IC121
AK7732VT
XTI
CKM[2]
CK_RESET
S_RESET
INIT_RESET
SDIN5A/JX0
BITCLK_I
LRCLK_I
RQ/CAD1
SCLK/SCL
SI/CAD0
SDIN3/JX2
SDOUT1
SDOUT2
SDOUT3
RDY
SO
LRCLK_O
BITCLK_O
AINL+
AINL-
RDSLOCK
RDSHSLK
RDSCK
RDSDATA
Q401
Q402
Q403
5V → 3V
IC672
TC74VHC08FTS1
3V → 5V
IC671
TC74VHCT08AFTS1
INPUT ADC
IC261
NJM4558MD
BUFFER
IC251
NJM4558MD
A5V
SYSTEM CONTROLLER
IC601(1/2)
PEG176A:Ⓐ
PEG178A:Ⓑ,Ⓒ
SYSPW
DSPPW
DALMON
BSENS
ASENS
BATIND
ISENS
TELIN
EVOLCS
FCKSEL
XIN
XOUT
X601
15.000MHz
RESET
IC661
S-80835CNMC-B8U
VDD
Q661
RST1
D/A CONVERTER
IC161
PCM1793DB
IC171
PCM1793DB
IC181
PCM1793DB
LRCK
BCK
DATA
SCK
VoutL-
VoutL+
LPF
IC201
NJM2114M
IC202
NJM2114M
IC203
NJM2114M
ELECTRONIC VOLUME/
SOURCE SELECTOR
IC281
PM9009A
Vi1(FL)
Vi3(RL)
Vi15(SWL)
So1L
SCK
SDA
CS
FCKSEL
Vo5a
Vo1a
Vo3a
Vo1b
Vo3b
Si4L
Si1L+
Si1L-
Si2L
Si3L
TUN L
BUSL+
BUSL-
AUXL
AUTOEQ
SYSTEM CONTROLLER
IC601(2/2)
PEG176A:Ⓐ
PEG178A:Ⓑ,Ⓒ
TX
RX
RX2
IPPW
PEE
FLPILM
MUTE
ASENBO
AMPPW
KEYD(EW)
KEYAD
ROMCSB
ROMSO
ROMSI
ROMSCK
JSNSON1
JSNSON2
JCKSNS
CDRST
LRCKOK
FLPCLS
FLPOPN
FOPNSW
FCLSSW
FLPPW
ROT0
ROT1
MCKRQ
DSPMOD
ILMPW
DIM_WH
DIM_BL
(PUC/JP)
AUXON
AEQON
OELPW
DSENS
KYDT
DPDT
SWVDD
BUZZER
BZ601
FLAP ILM
Q831
PRE-OUTMUTE
Q382
Q381
AMPMUTE
Q331
ILM+B CONTROL
Q821
Q822
Q823
SWVDD
Q861
Q862
OEL+B REGULATOR
Q841
Q842
IC841
NJM2360M
DC-DC CONVERTER
9.2V
OELB
RST
POWER AMP
IC331
PAL007B
VCC1/2,VCC3/4
FLIN
RLIN
MUTE
STBY
FL-
FL+
RL-
RL+
AUDIO3V REGULATOR
IC731
NJM2885DL1-33
DAC5V REGULATOR
IC721
NJM2872F05
AUDIO8V REGULATOR
Q711
Q712
TUN8V REGULATOR
Q701
Q702
B.REM
IC941
TPD1018F
VDD REGULATOR
Q751
Q752
BACKUP SENSE
Q911
ACC SENSE
ILL SENSE
Q921
TEL IN
Q931
Q353
Q356
Q351
Q354
Q355
Q352
FU351
RCA OUT
CN351
SW L
FRONT L
REAR L
CN901
BUP
ACC
ILL
TEL
B.REM
BRE
GND
CN581
KEYD
KEYAD
WIRED REOTE
FAN DRIVE
Q591
Q592
CN591
FAN
CN801
JACKSNS
AUXL
AUXGND
ILB
G5V
CN1801
C

C KEYBOARD UNIT



A CN801

Ⓐ:DEH-P88RS/XN/EW5
Ⓑ:DEH-P880PRS/XN/UC
Ⓒ:DEH-P80RS/XN/ES

A

B

C

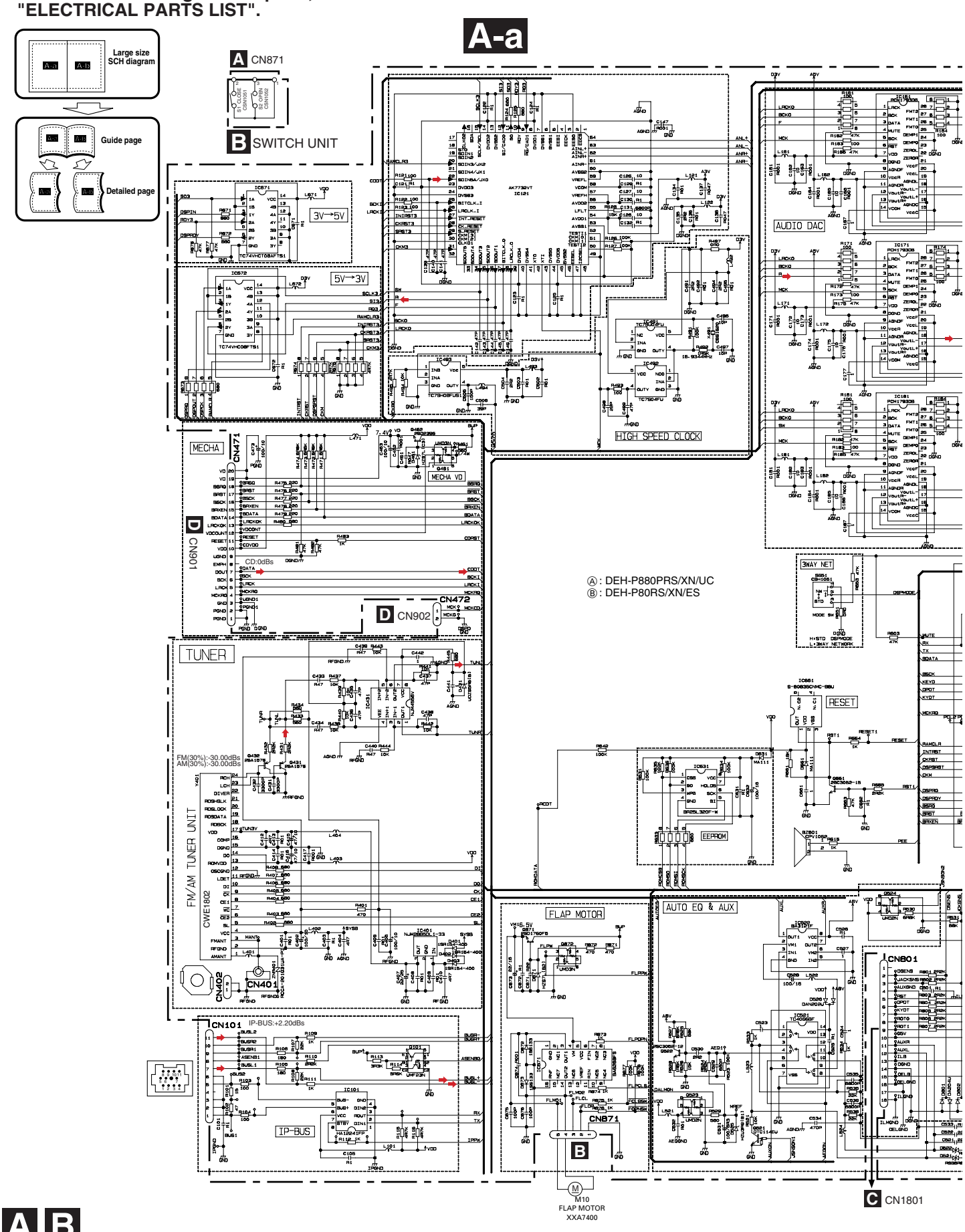
D

E

F

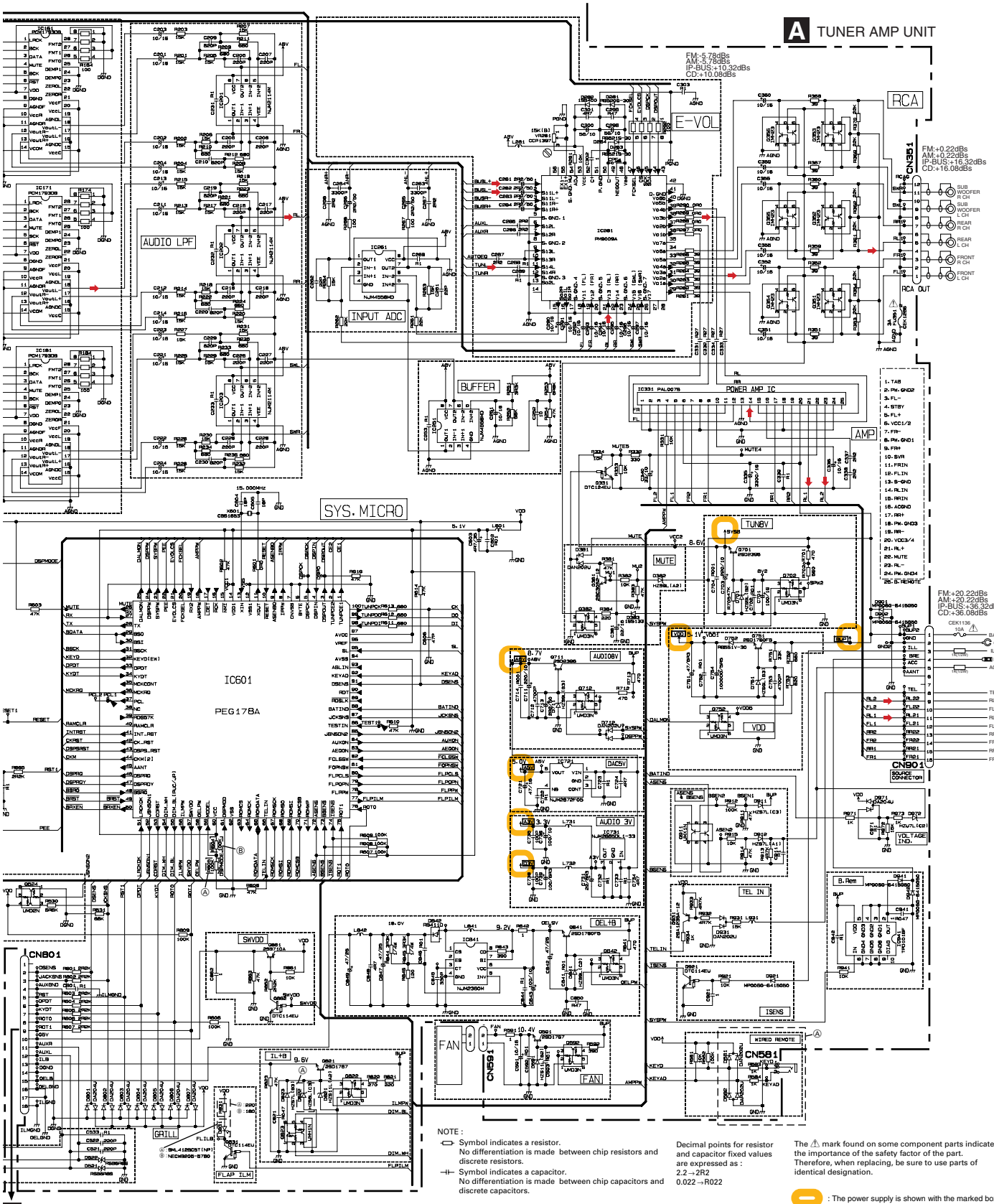
3.2 OVERALL CONNECTION DIAGRAM(UC, ES MODEL)(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



A-b

A TUNER AMP UNIT



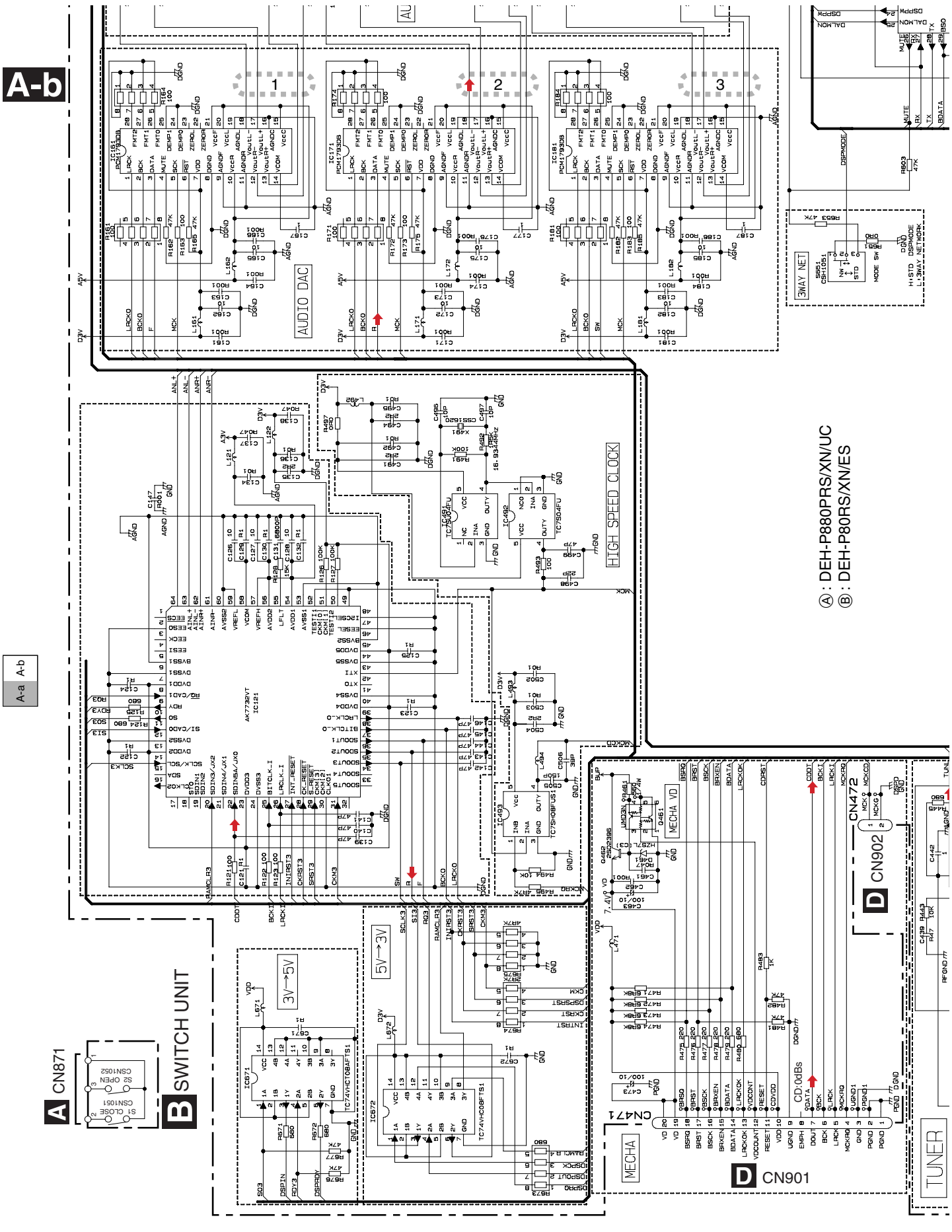
NOTE :

- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :
2.2→2R2
0.022→R022

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

: The power supply is shown with the marked box.


A-b
AUDIO DAC
HIGH SPEED CLOCK
A-a A-b
A CN871
B SWITCH UNIT
D CN902
D CN901
MECHA
TUNER
3WAY NET
Ⓐ : DEH-P880PRS/XN/UC
Ⓑ : DEH-P80RS/XN/ES
A-a B

Ⓑ : DEH-P80RS/XN/ES

A-b

C CN1801

B

AUTO EQ & AUX

FLAP MOTOR

CN871

M10
FLAP MOTOR
XXA7400

A-b
A-a

D CN902

CN472

TUNER

FM/AM TUNER UNIT

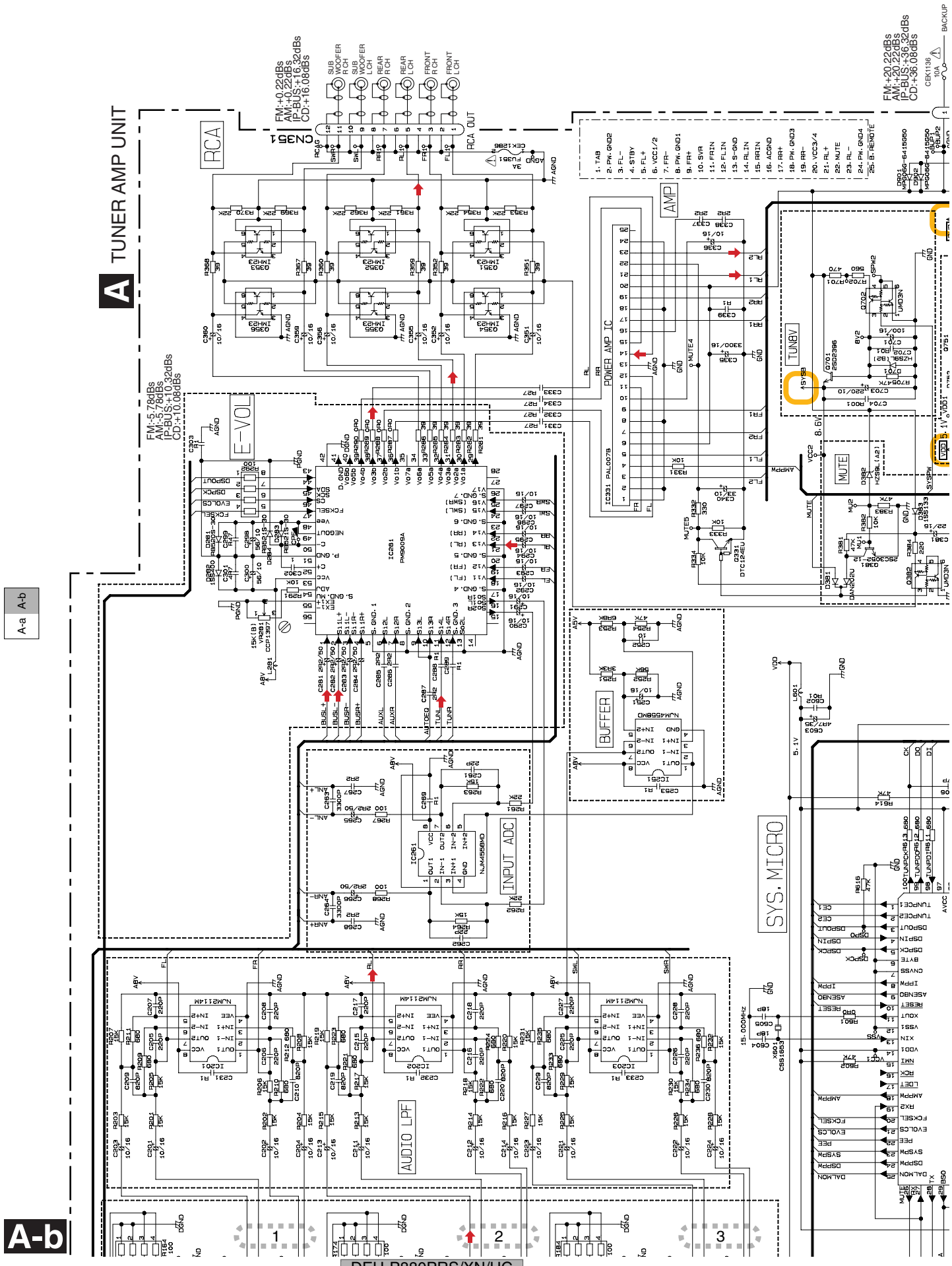
CN401

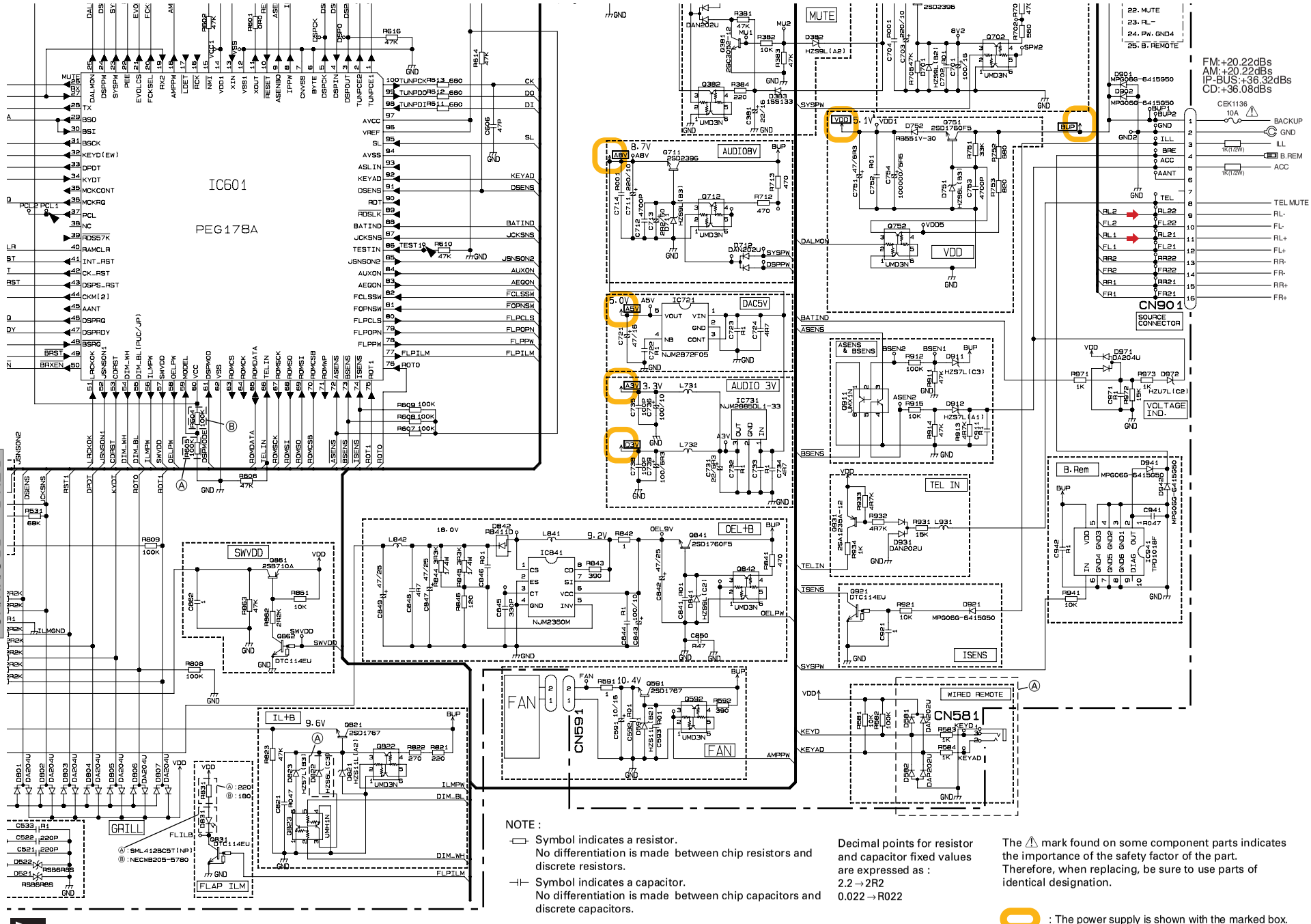
CN402

CN101 IP-BUS:+2.20dBs

IP-BUS

A-a


A TUNER AMP UNIT
RCA
CN351
RCA OUT
SUB WOOFER R CH
SUB WOOFER L CH
REAR R CH
REAR L CH
FRONT R CH
FRONT L CH
FM:+0.22dBs
AM:+0.22dBs
IP-BUS:+16.32dBs
CD:+16.08dBs
FM:+20.22dBs
AM:+20.22dBs
IP-BUS:+36.32dBs
CD:+36.08dBs
BACKUP
CBK1136
10A
1. TAB
2. PW. GND2
3. FL−
4. STBY
5. FL+
6. VCC1/2
7. FR−
8. PW. GND1
9. FR+
10. SVR
11. FRIN
12. FLIN
13. S-GND
14. RLIN
15. RRIN
16. ACGND
17. RR+
18. PW. GND3
19. RR−
20. VCC3/4
21. RL+
22. MUTE
23. RL−
24. PW. GND4
25. B. REMOTE
AMP
POWER AMP IC
IC391 PAL0078
MUTE4
TUNER
MUTE
E-VOL
PW9009A
IC281
INPUT ADC
NJM4558MD
BUFFER
NJM4558MD
AUDIO LPF
NJM2114M
SYS. MICRO
15.000MHz
FM:−5.78dBs
AM:−5.78dBs
IP-BUS:+10.32dBs
CD:+10.08dBs
A-a
A-b
A-b
1
2
3



DEH-P880PRS/XNUC

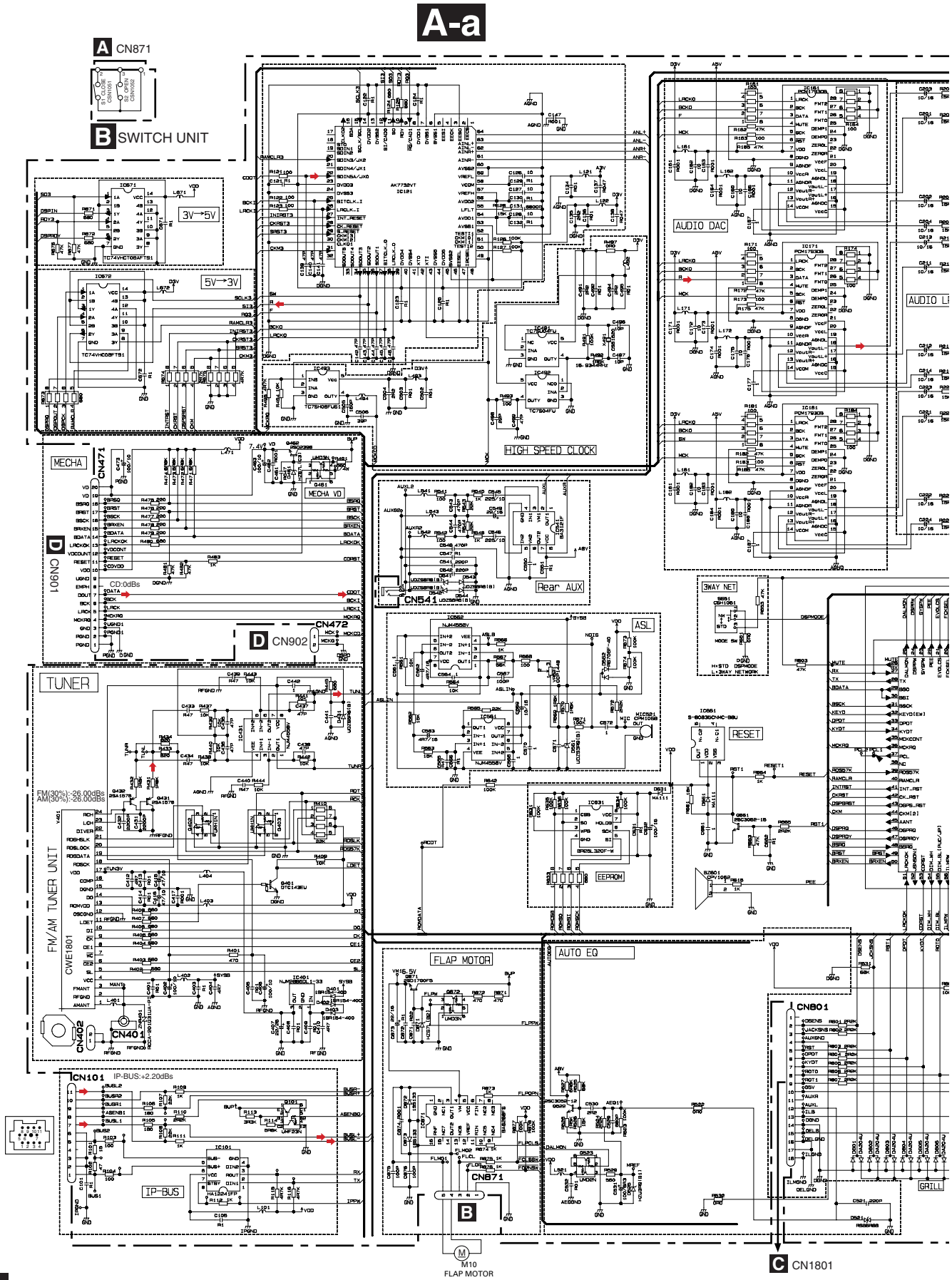
A-b

A-a A-b

5 6 7 8 33

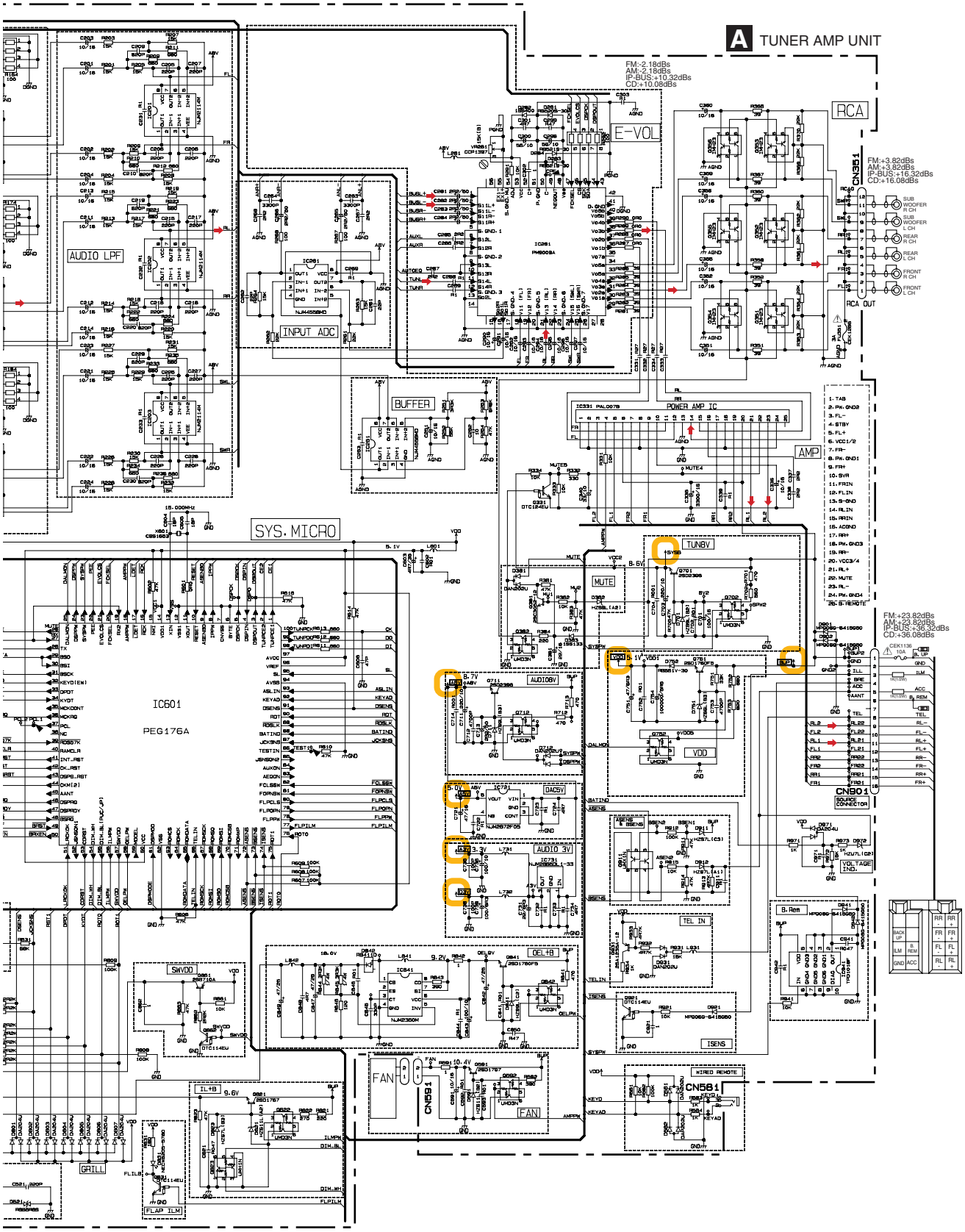
F E D C B A

3.3 OVERALL CONNECTION DIAGRAM(EW5 MODEL)(GUIDE PAGE)



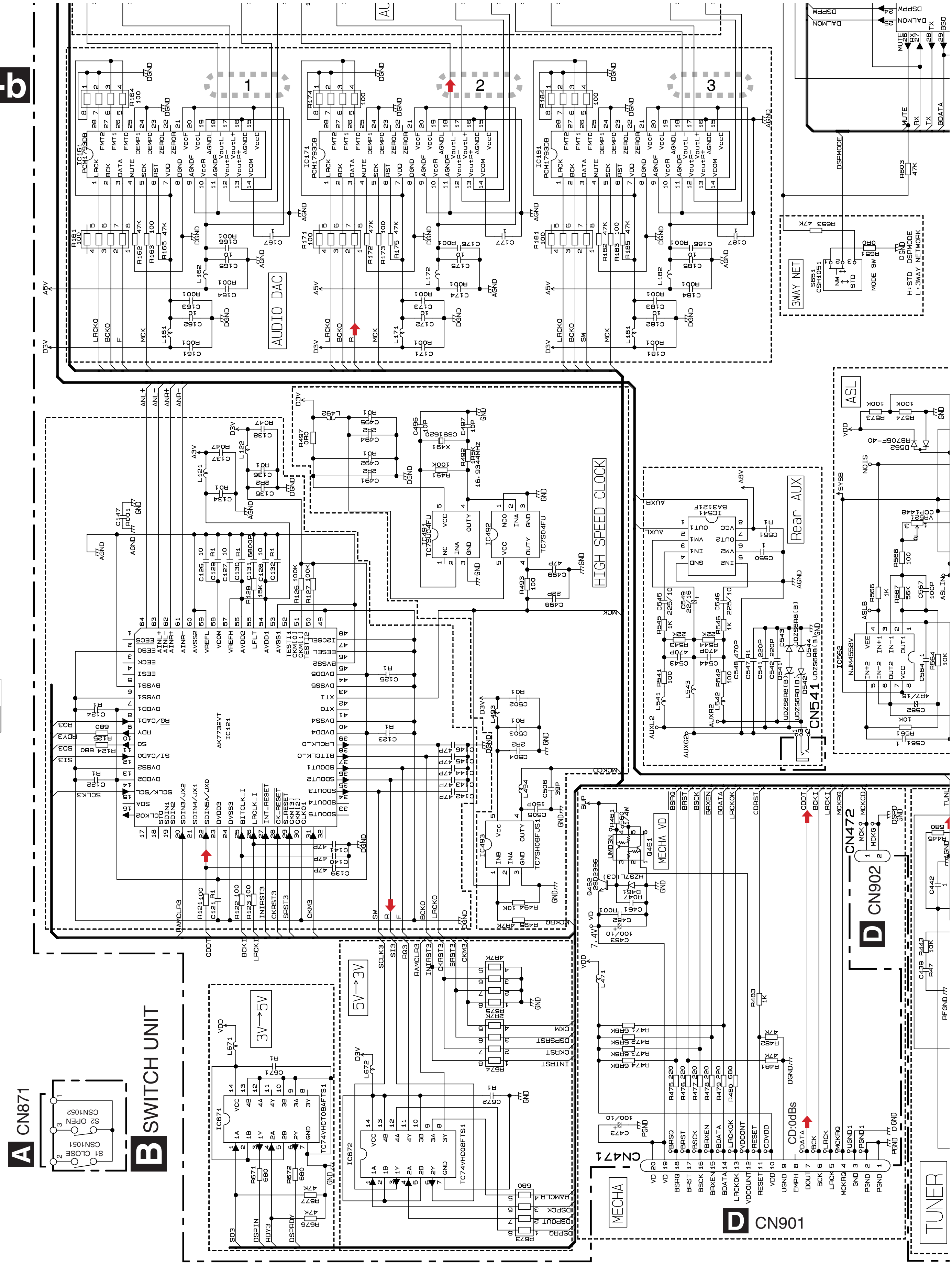
A-b

A TUNER AMP UNIT



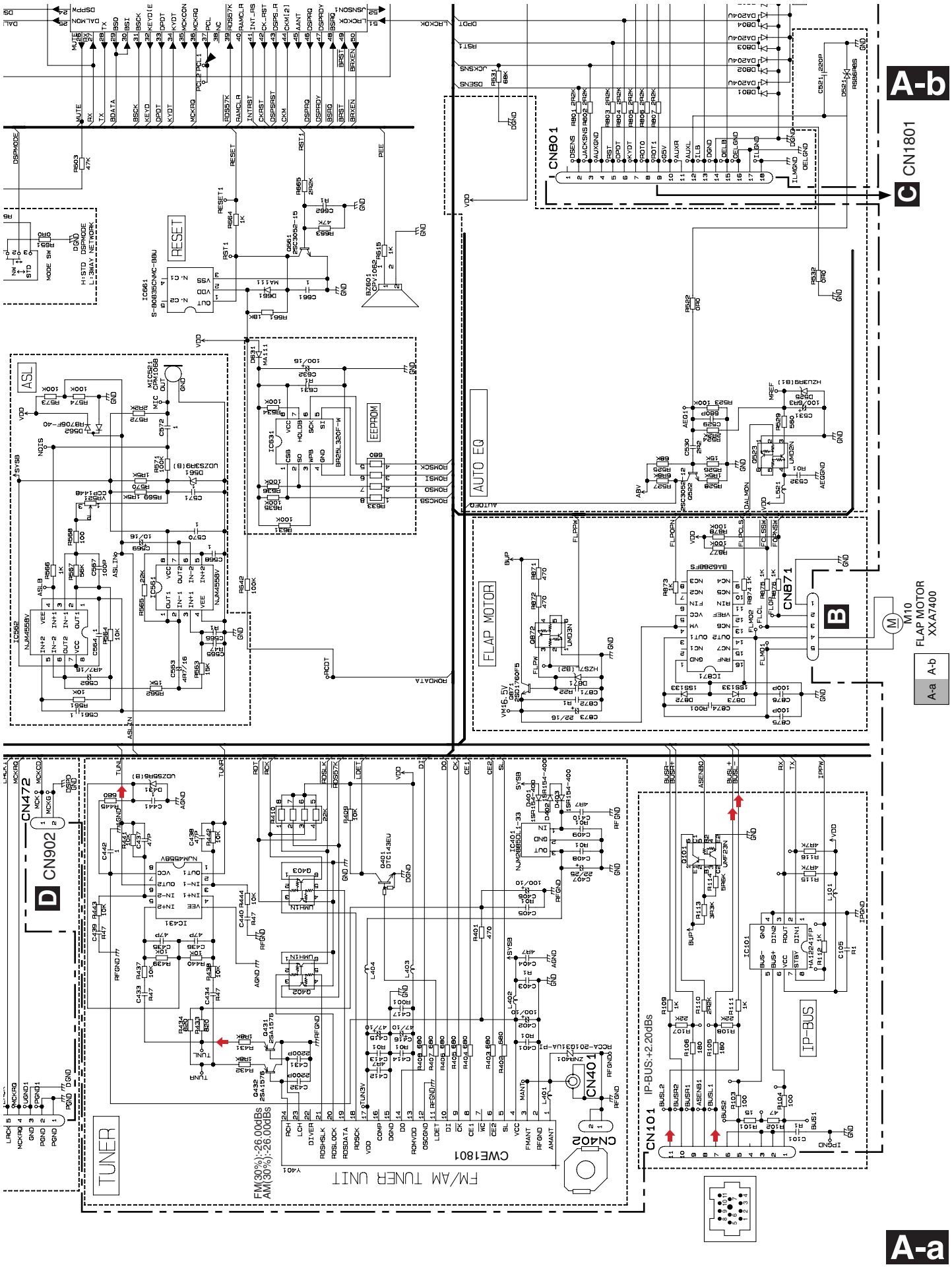
1 2 3 4

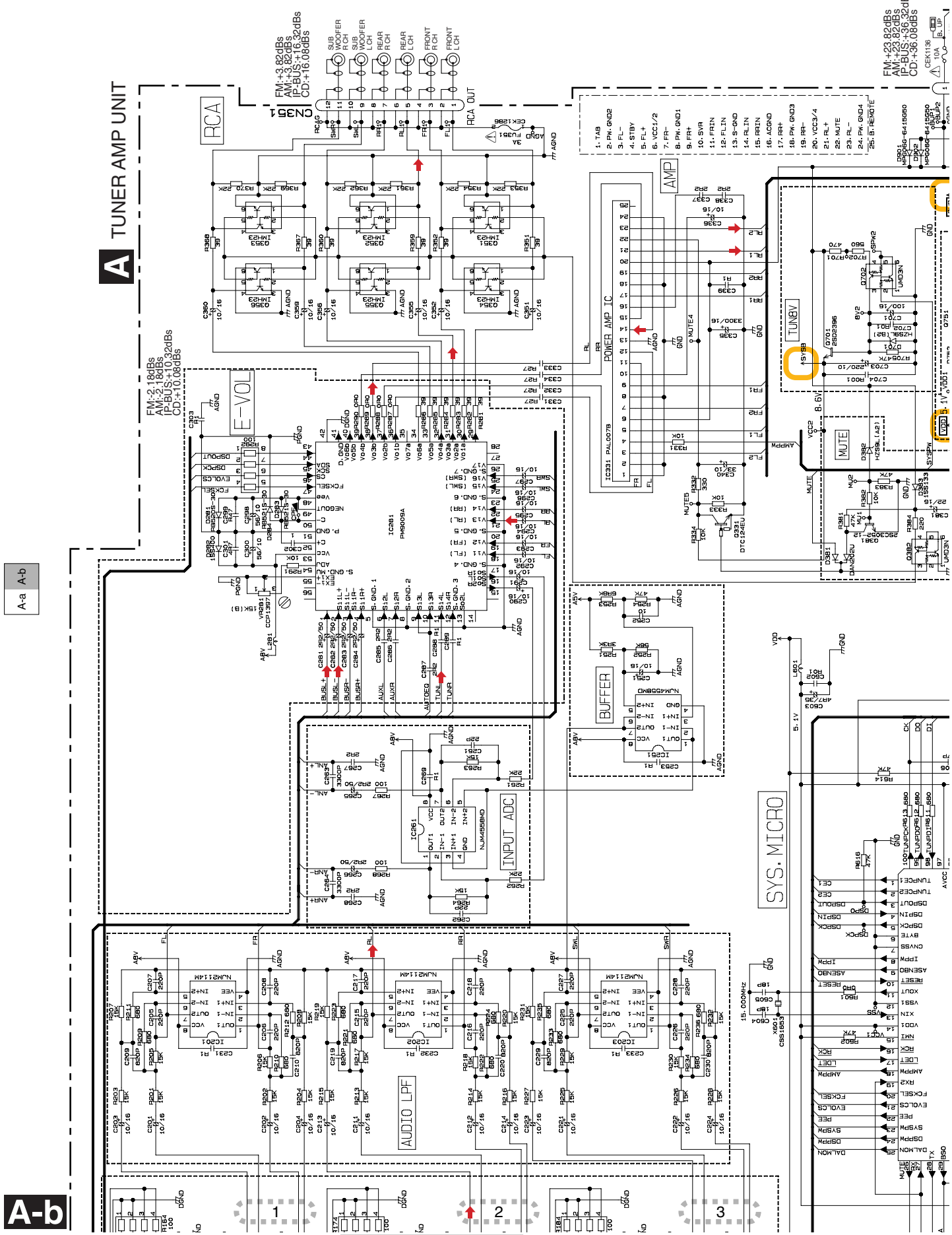
A-b



A-a B

1 2 3 4


A-b
C CN1801
CN801
AUTO EQ
FLAP MOTOR
CN871
B
M10
FLAP MOTOR
XXA7400
A-b
A-a
ASL
RESET
EEPROM
D CN902
CN472
TUNER
FM/AM TUNER UNIT
CW1801
CN401
CN402
CN101
IP-BUS:+2.20dBs
IP-BUS
A-a


A TUNER AMP UNIT
RCA
CN351
RCA OUT
SUB WOOFER R CH
SUB WOOFER L CH
REAR R CH
REAR L CH
FRONT R CH
FRONT L CH
FM:+3.82dBs
AM:+3.82dBs
IP-BUS:+16.32dBs
CD:+16.08dBs
FM:+23.82dBs
AM:+23.82dBs
IP-BUS:+36.32dBs
CD:+36.08dBs
FM:-2.18dBs
AM:-2.18dBs
IP-BUS:+10.32dBs
CD:+10.08dBs
AMP
POWER AMP IC
IC391 PAL0078
TUNER
MUTE
E-VOL
IC281 PW9009A
BUFFER
INPUT ADC
AUDIO LPF
SYS. MICRO
A-b
A-a
A-b
1
2
3

A

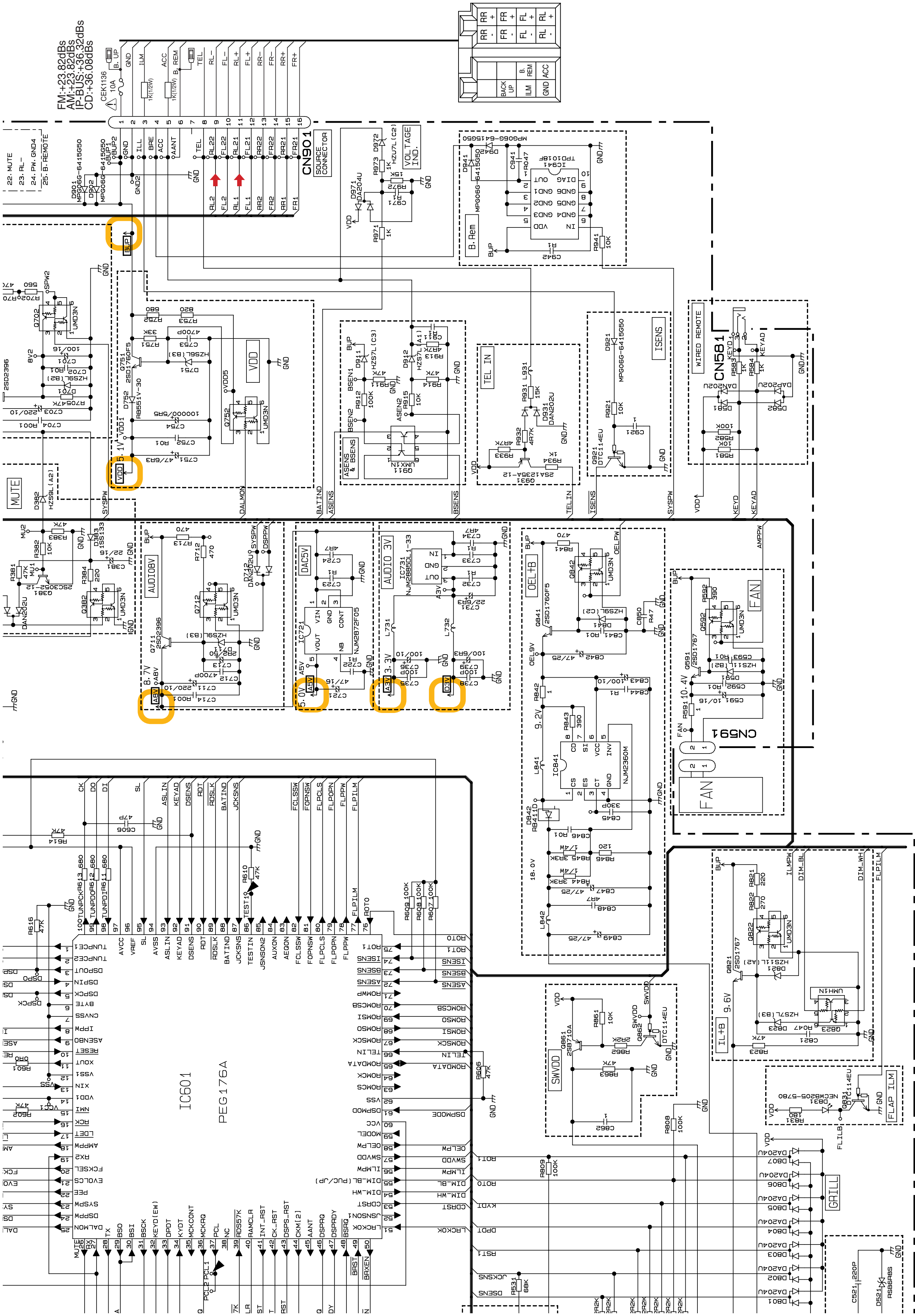
B

C

D

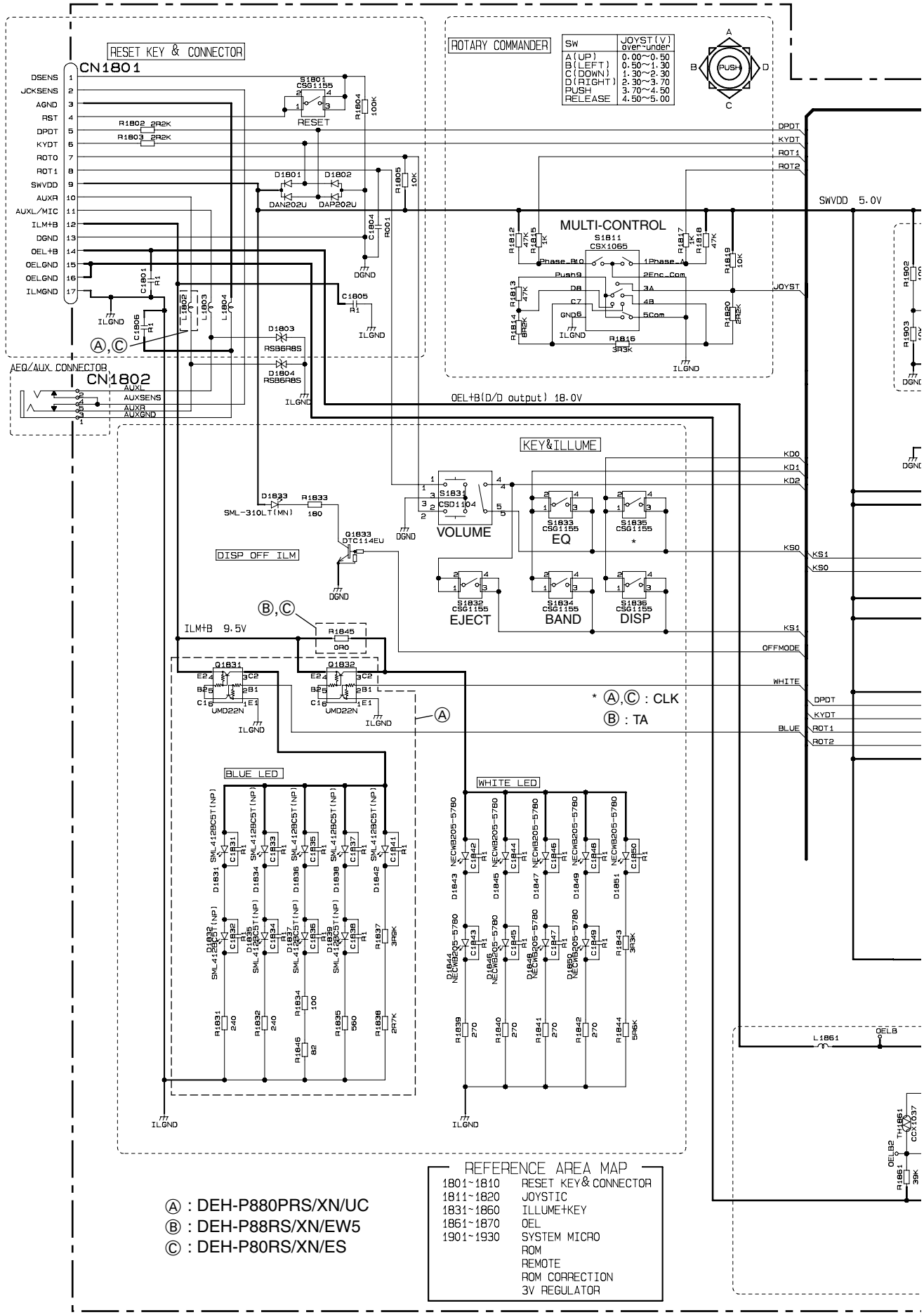
E

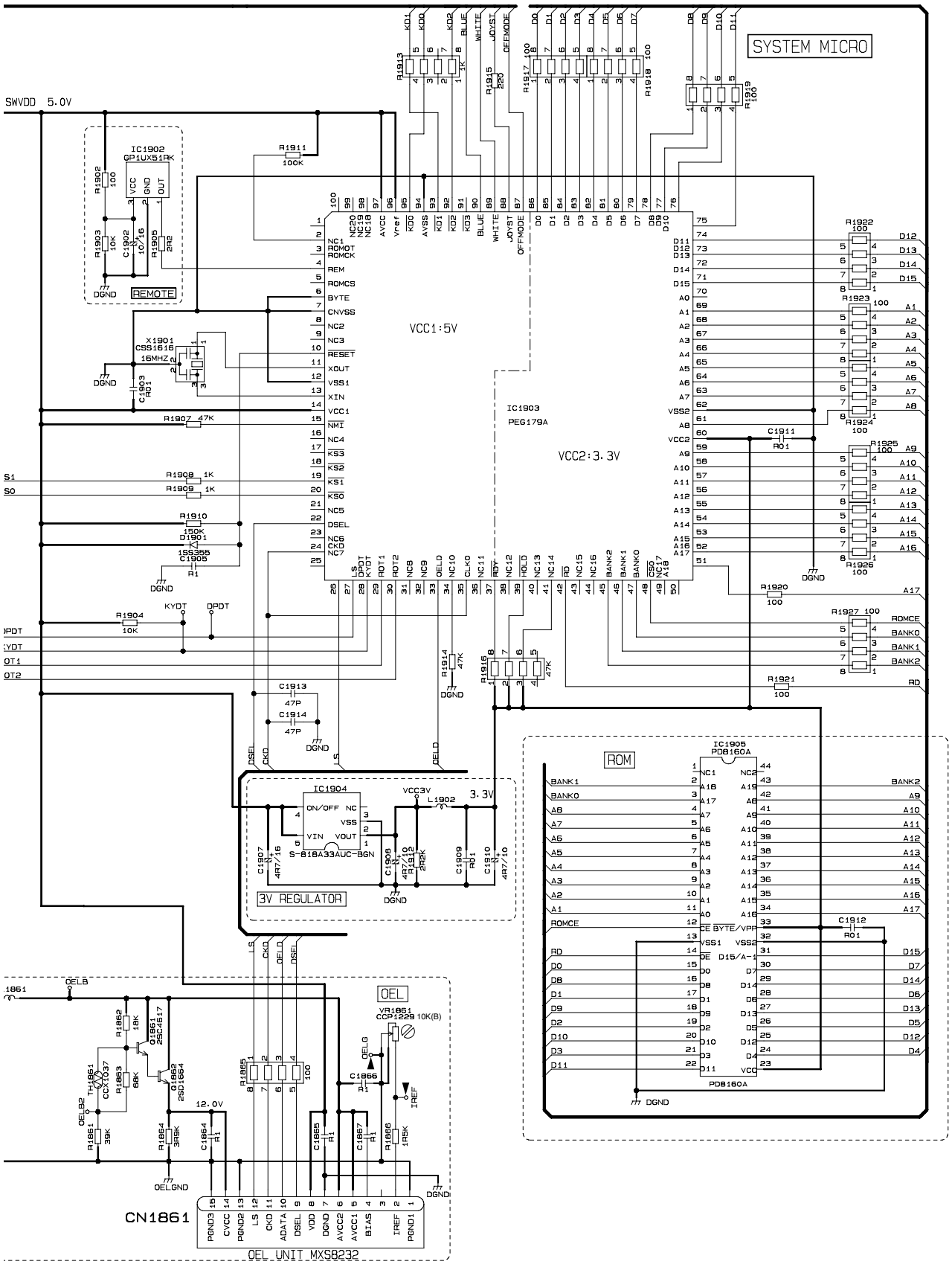
F


FM:+23.82dBs
AM:+23.82dBs
IP-BUS:+36.32dBs
CD:+36.08dBs
CN901
SOURCE CONNECTOR
VOLTAGE IND.
IC941
TPD1018F
B.Rem
VDD
MUTE
TEL IN
ISENS
WIRED REMOTE
CN581
AUDIO8V
DAC5V
AUDIO 3V
IC731
NJM2885DL1-33
IC721
NJM2872F05
DEL+B
IC841
NJM2360M
FAN
CN591
IC601
PEG176A
SWVDD
IL+B
FLAP ILM
GRILL

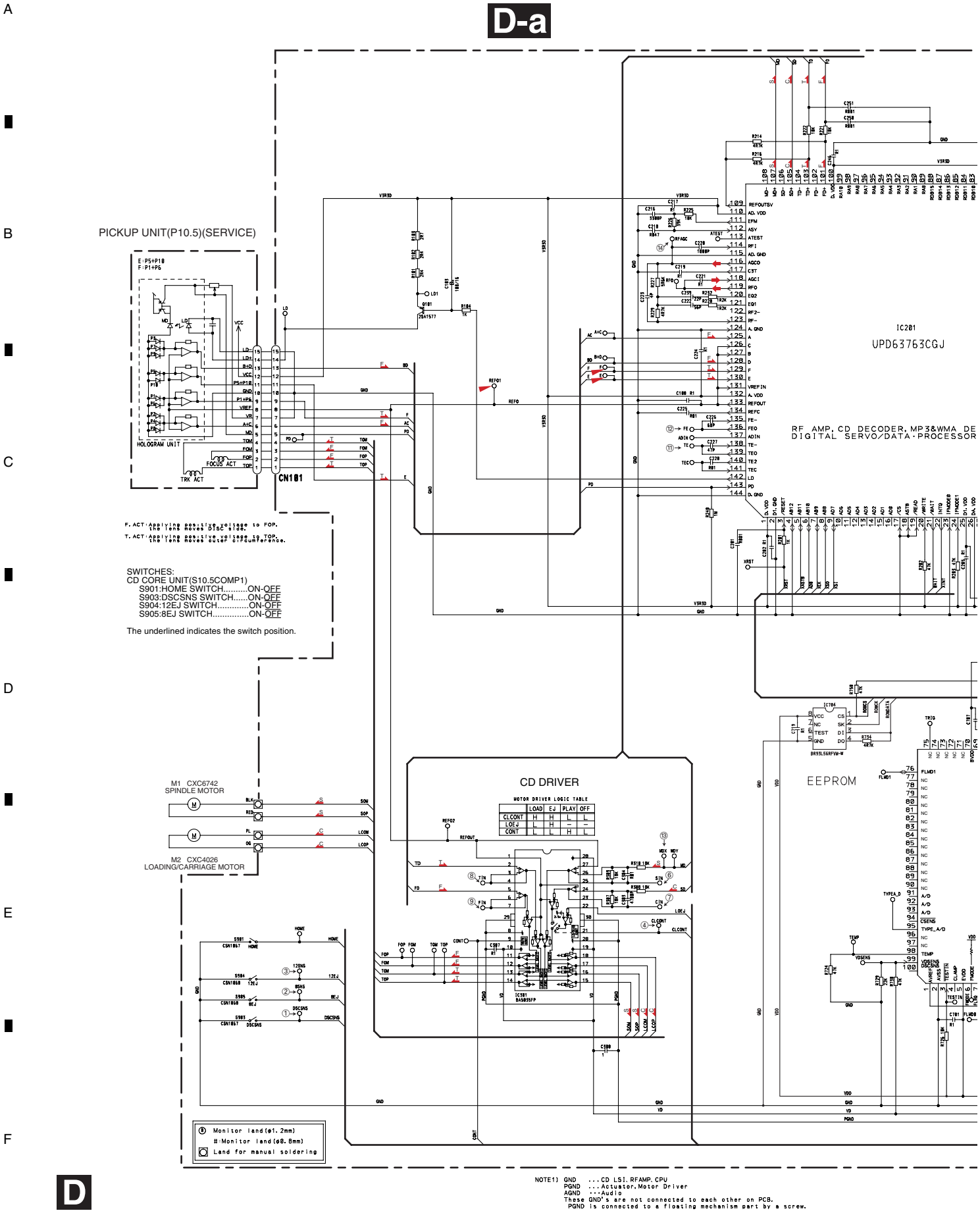
A-b

3.4 KEYBOARD UNIT

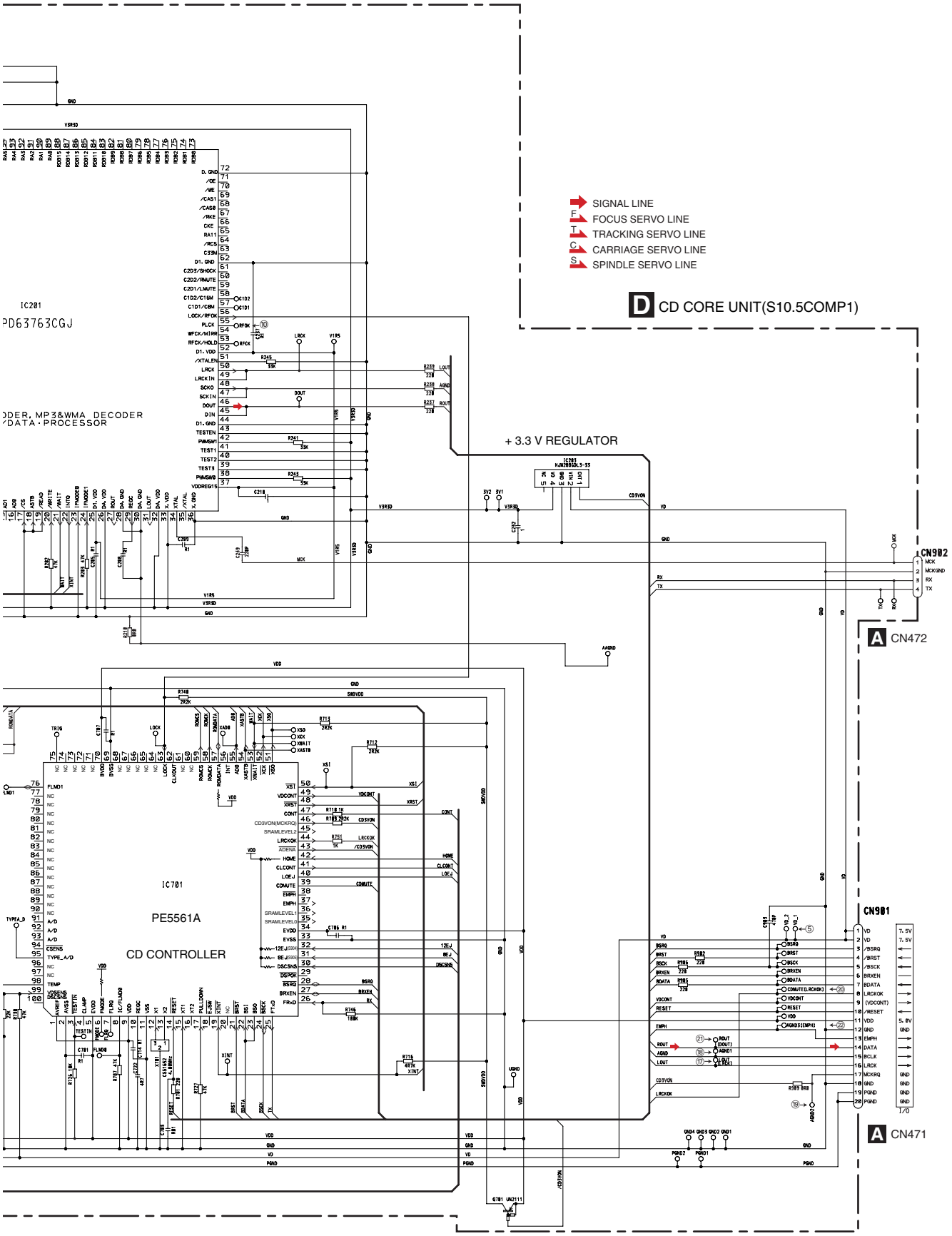


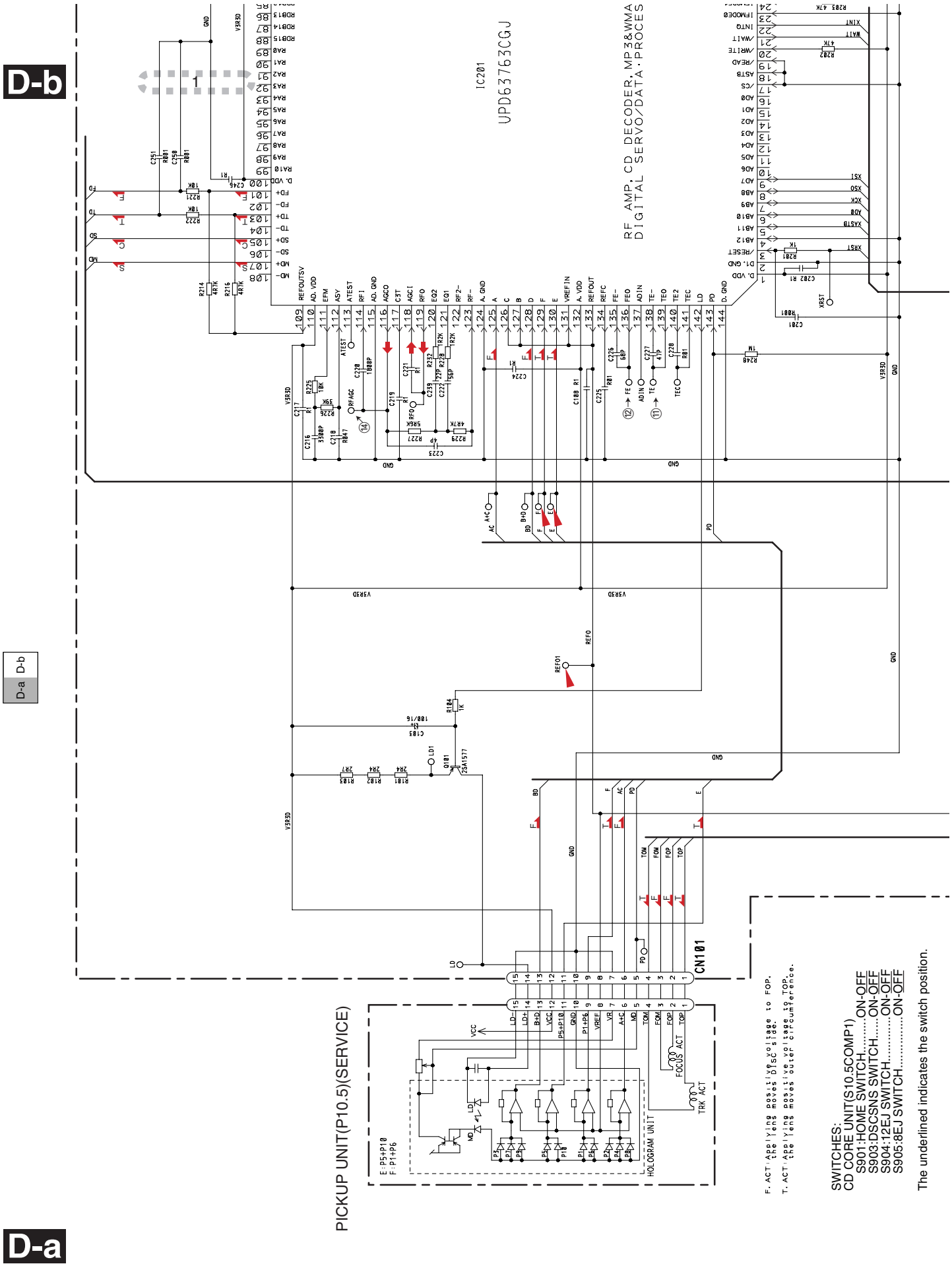

SYSTEM MICRO
SWVDD 5.0V
VCC1:5V
VCC2:3.3V
IC1903
PEG179A
REMOTE
3V REGULATOR
ROM
OEL
CN1861
OEL UNIT MXS8232

3.5 CD MECHANISM MODULE(GUIDE PAGE)



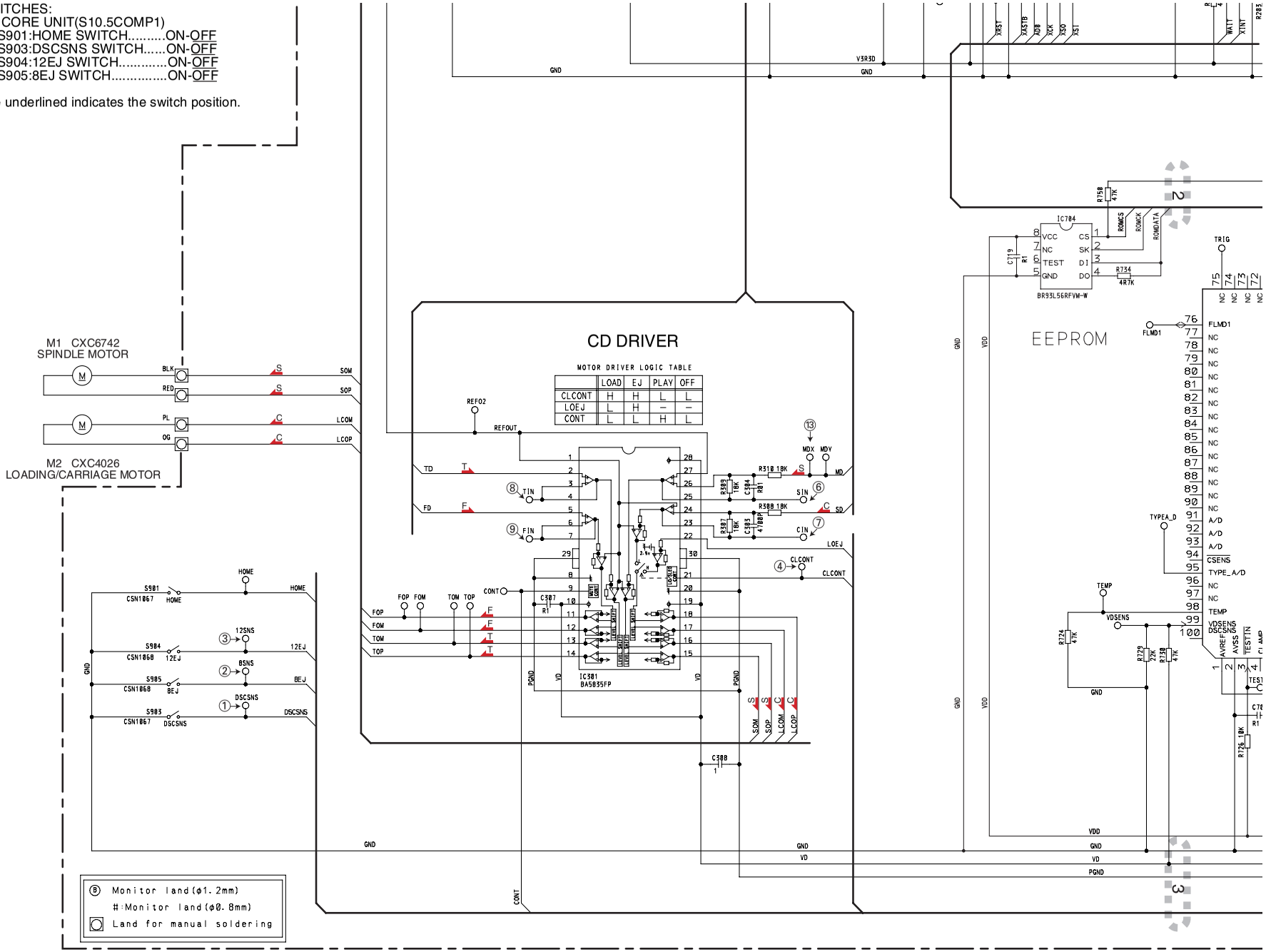
D-b


SIGNAL LINE
FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE
D CD CORE UNIT(S10.5COMP1)
+ 3.3 V REGULATOR
IC201
PD63763CGJ
IC701
PE5561A
CD CONTROLLER
CN902
CN981
A CN472
A CN471
D


D-b
D-a
IC201
UPD63763CGJ
RF AMP, CD DECODER, MP3&WMA
DIGITAL SERVO/DATA PROCES
CN101
PICKUP UNIT(P10.5)(SERVICE)
HOLOGRAM UNIT
E: P5+P10
F: P1+P6
F. ACT Applying positive voltage to FOP.
T. ACT Applying positive voltage to TOP.
SWITCHES:
CD CORE UNIT(S10.5COMP1)
S901:HOME SWITCH.....ON-OFF
S903:DSCSNS SWITCH.....ON-OFF
S904:12EJ SWITCH.....ON-OFF
S905:8EJ SWITCH.....ON-OFF
The underlined indicates the switch position.

SWITCHES:
CD CORE UNIT(S10.5COMP1)
S901:HOME SWITCH.....ON-OFF
S903:DSCSNS SWITCH.....ON-OFF
S904:12EJ SWITCH.....ON-OFF
S905:8EJ SWITCH.....ON-OFF

The underlined indicates the switch position.



NOTE1) GND ...CD LSI, RFAMP, CPU
PGND ...Actuator, Motor Driver
AGND ...Audio
These GND's are not connected to each other on PCB.
PGND is connected to a floating mechanism part by a screw.

D-a D-b

D-a

D-b

D-b

DEH-P880PRS/XN/UC

SIGNAL LINE
FOCUS SERVO LINE
TRACKING SERVO LINE
CARRIAGE SERVO LINE
SPINDLE SERVO LINE

D CD CORE UNIT(S10.5COMP1)

IC201
D63763CGJ

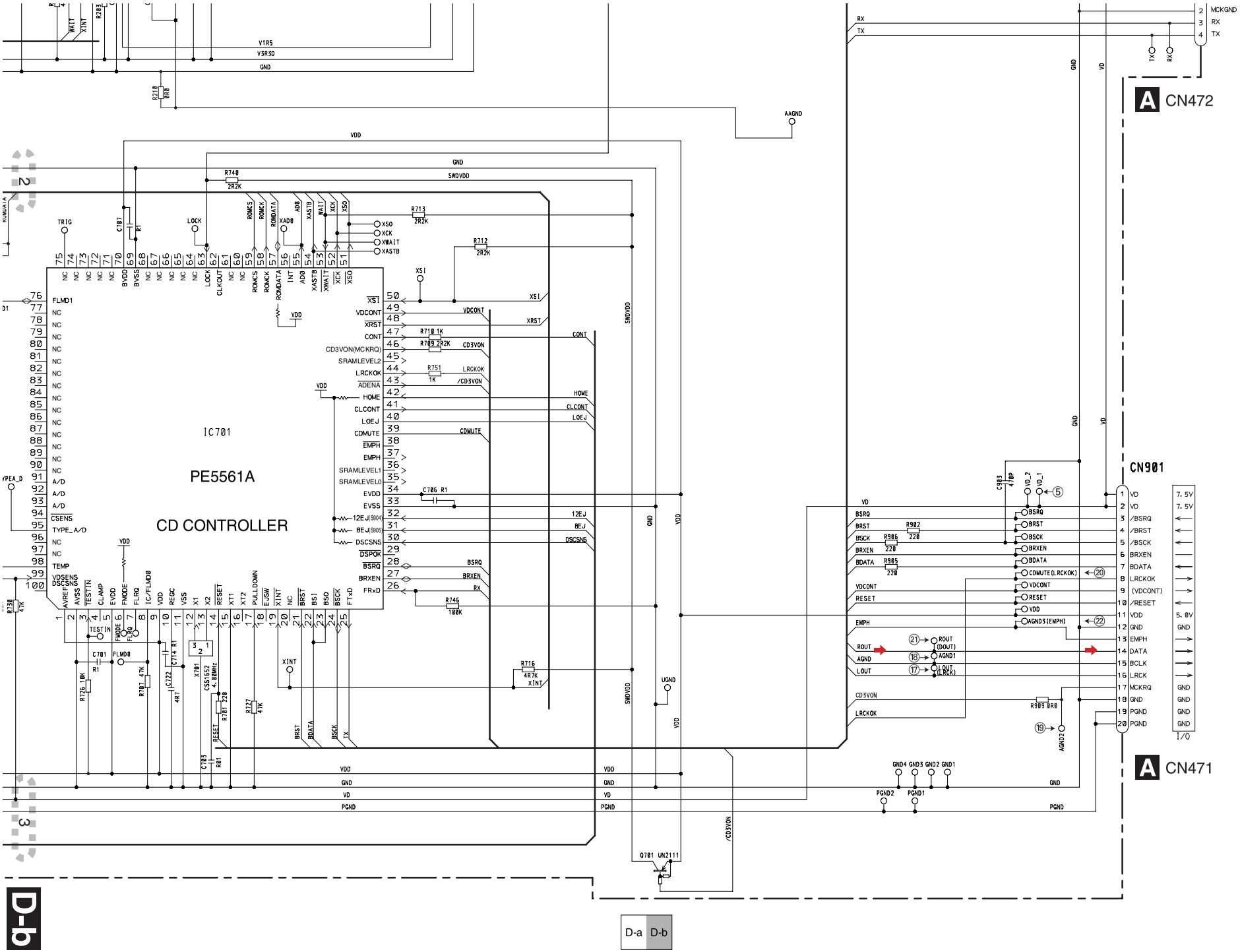
DER, MP3&WMA DECODER
DATA · PROCESSOR

+ 3.3 V REGULATOR

IC203
NJM2886DL3-33

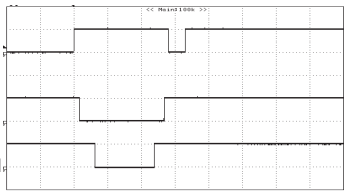
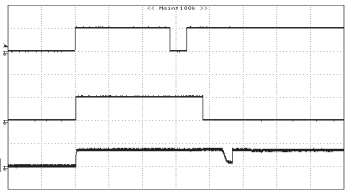
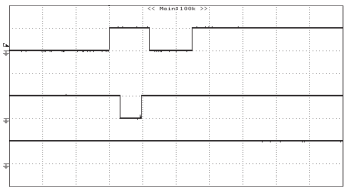
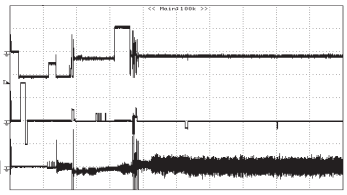
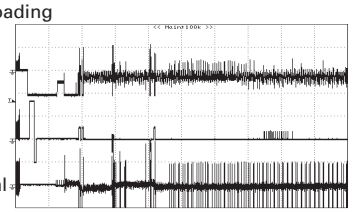
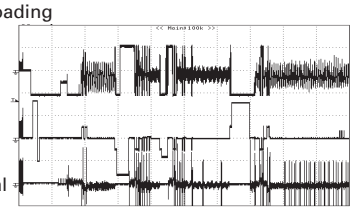
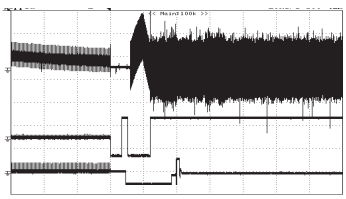
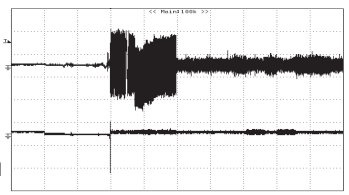
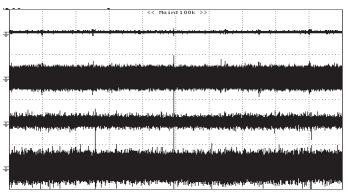
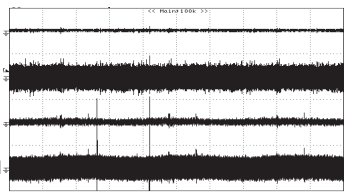
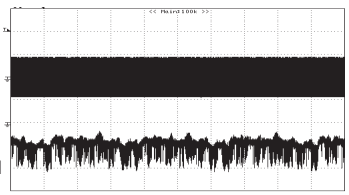
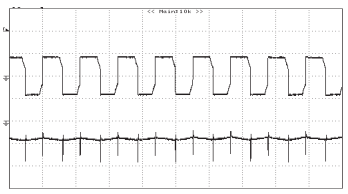
CN902
1 MCK
2 MCKGND
3 RX
4 TX

A CN472


DEH-P880PRS/XNUC
IC701
PE5561A
CD CONTROLLER
CN901
A CN472
A CN471
D-b
D-a D-b

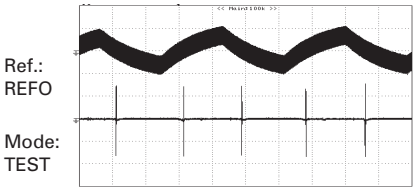
● Waveforms

Note : 1. The encircled numbers denote measuring points in the circuit diagram.
2. Reference voltage REFO1(1.65 V)

① DSCSNS 5 V/div 500 ms/div ② 8SNS 5 V/div ③ 12SNS 5 V/div 12 cm CD Loading operation Ref.: GND Mode: Normal 	① DSCSNS 5 V/div 500 ms/div ④ CLCONT 5 V/div ⑤ VD 10 V/div 12 cm CD Loading operation Ref.: GND Mode: Normal 	① DSCSNS 5 V/div 500 ms/div ② 8SNS 5 V/div ③ 12SNS 5 V/div 8 cm CD Loading operation Ref.: GND Mode: Normal 
⑥ SIN 1 V/div 1 s/div ⑦ CIN 500 mV/div ⑧ TIN 500 mV/div 12 cm CD-DA setup operation after loading Ref.: REFO Mode: Normal 	⑥ SIN 1 V/div 1 s/div ⑦ CIN 500 mV/div ⑧ TIN 500 mV/div 12 cm CD-ROM(1 session) setup operation after loading Ref.: REFO Mode: Normal 	⑥ SIN 1 V/div 1 s/div ⑦ CIN 500 mV/div ⑧ TIN 500 mV/div 12 cm CD-ROM(3 sessions) setup operation after loading Ref.: REFO Mode: Normal 
⑨ FIN 200 mV/div 500 ms/div ⑩ RFOK 2 V/div ⑥ SIN 2 V/div 12 cm CD-DA Source On setup operation Ref.: REFO Mode: Normal 	⑪ TE 500 mV/div 200 ms/div ⑫ FE 500 mV/div Source On setup operation Ref.: REFO Mode: Normal 	⑫ FE 500 mV/div 20 ms/div ⑨ FIN 500 mV/div ⑪ TE 500 mV/div ⑧ TIN 500 mV/div CD-DA Play operation Ref.: REFO Mode: Normal 
⑫ FE 500 mV/div 20 ms/div ⑨ FIN 500 mV/div ⑪ TE 500 mV/div ⑧ TIN 500 mV/div CD-ROM play operation(Regular track Jump) Ref.: REFO Mode: Normal 	⑬ MDX 2 V/div 50 ms/div ⑥ SIN 200 mV/div Spindle waveform during play operation Ref.: REFO Mode: Normal 	⑬ MDX 2 V/div 5 µs/div ⑥ SIN 500 mV/div Spindle waveform during play operation (Wider) Ref.: REFO Mode: Normal 

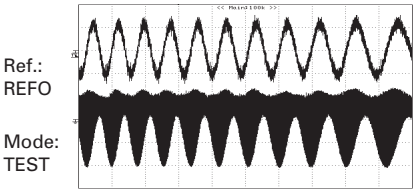
⑨ FIN 500 mV/div 200 ms/div
⑫ FE 500 mV/div

Focus Search waveform



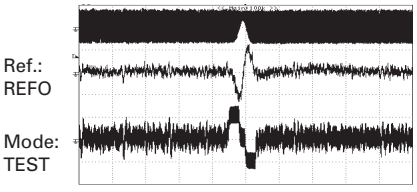
⑪ TE 500 mV/div 2 ms/div
⑭ RFAGC 500 mV/div

Track Open waveform



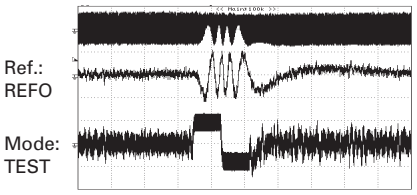
⑭ RFAGC 1 V/div 500 µs/div
⑪ TE 500 mV/div
⑧ TIN 500 mV/div

1 Track Jump waveform



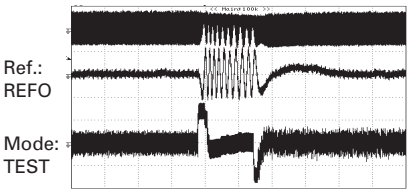
⑭ RFAGC 1 V/div 500 µs/div
⑪ TE 500 mV/div
⑧ TIN 500 mV/div

4 Tracks Jump waveform



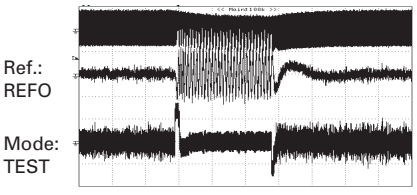
⑭ RFAGC 1 V/div 1 ms/div
⑪ TE 500 mV/div
⑧ TIN 500 mV/div

10 Tracks Jump waveform



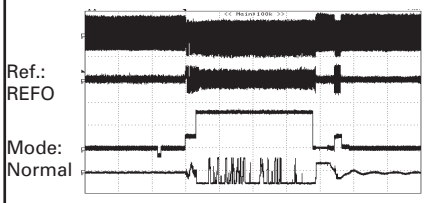
⑭ RFAGC 1 V/div 2 ms/div
⑪ TE 500 mV/div
⑧ TIN 500 mV/div

32 Tracks Jump waveform



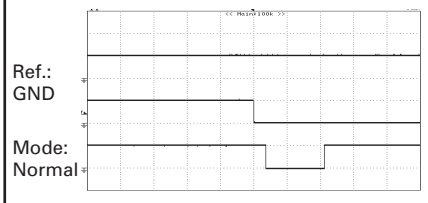
⑭ RFAGC 1 V/div 200 ms/div
⑪ TE 1 V/div
⑦ CIN 500 mV/div
⑥ SIN 2 V/div

Search operation(Outter to Inner)



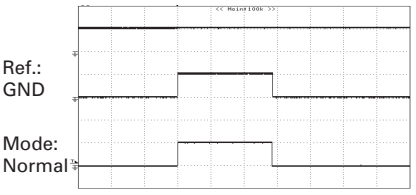
① DSCSNS 5 V/div 500 ms/div
② 8SNS 5 V/div
③ 12SNS 5 V/div

12 cm CD Eject operation



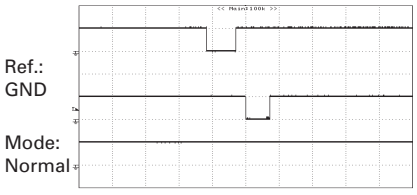
① DSCSNS 5 V/div 500 ms/div
⑤ CLCONT 5 V/div
④ LOEJ 5 V/div

12 cm CD Eject operation



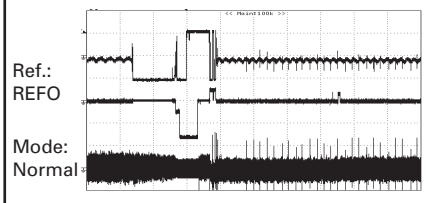
① DSCSNS 5 V/div 500 ms/div
② 8SNS 5 V/div
③ 12SNS 5 V/div

8 cm CD Eject operation



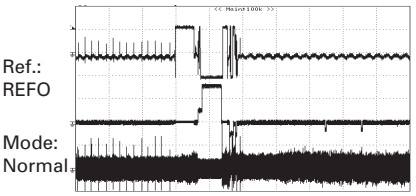
⑥ SIN 1 V/div 500 ms/div
⑦ CIN 500 mV/div
⑧ TIN 500 mV/div

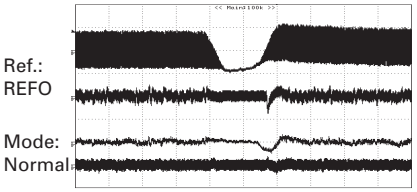
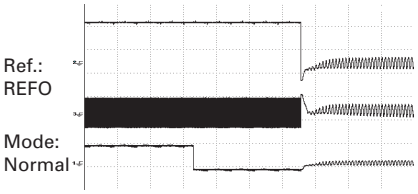
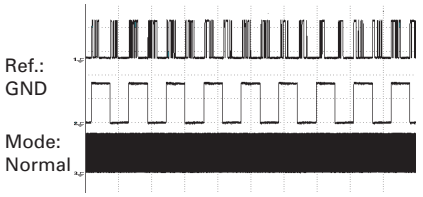
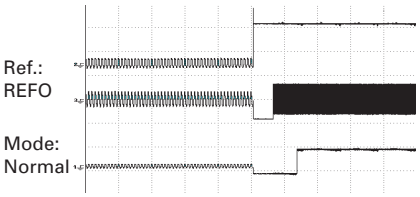
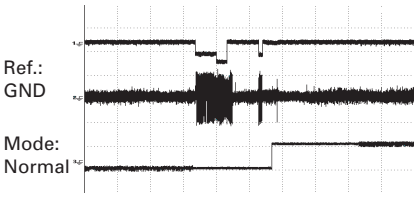
CD-DA → CD-ROM mode change(Band key)



⑥ SIN 1 V/div 500 ms/div
⑦ CIN 500 mV/div
⑧ TIN 500 mV/div

CD-ROM → CD-DA mode change(Band key)



⑭ RFAGC 1 V/div 500 µs/div ⑧ TIN 1 V/div ⑪ TE 1 V/div ⑨ FIN 1 V/div Black dot(800 µm) during play  	⑲ CD3VON 5 V/div 200 ms/div ⑰ LRCK 2 V/div ⑳ LRCKOK 2 V/div 12 cm CD Eject operation  	㉑ DOUT 2 V/div 20 µs/div ⑰ LRCK 2 V/div ⑱ BCK 2 V/div CD-DA play operation 
⑲ CD3VON 5 V/div 200 ms/div ⑰ LRCK 2 V/div ⑳ LRCKOK 2 V/div 12 cm CD-DA Source On setup operation  	⑦ CIN 500 mV/div 100 ms/div ⑪ TE 500 mV/div ㉒ EMPH 5 V/div Tracks Jump(EMPH : OFF → ON)  	

A

B

C

D

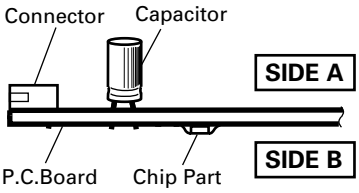
E

F

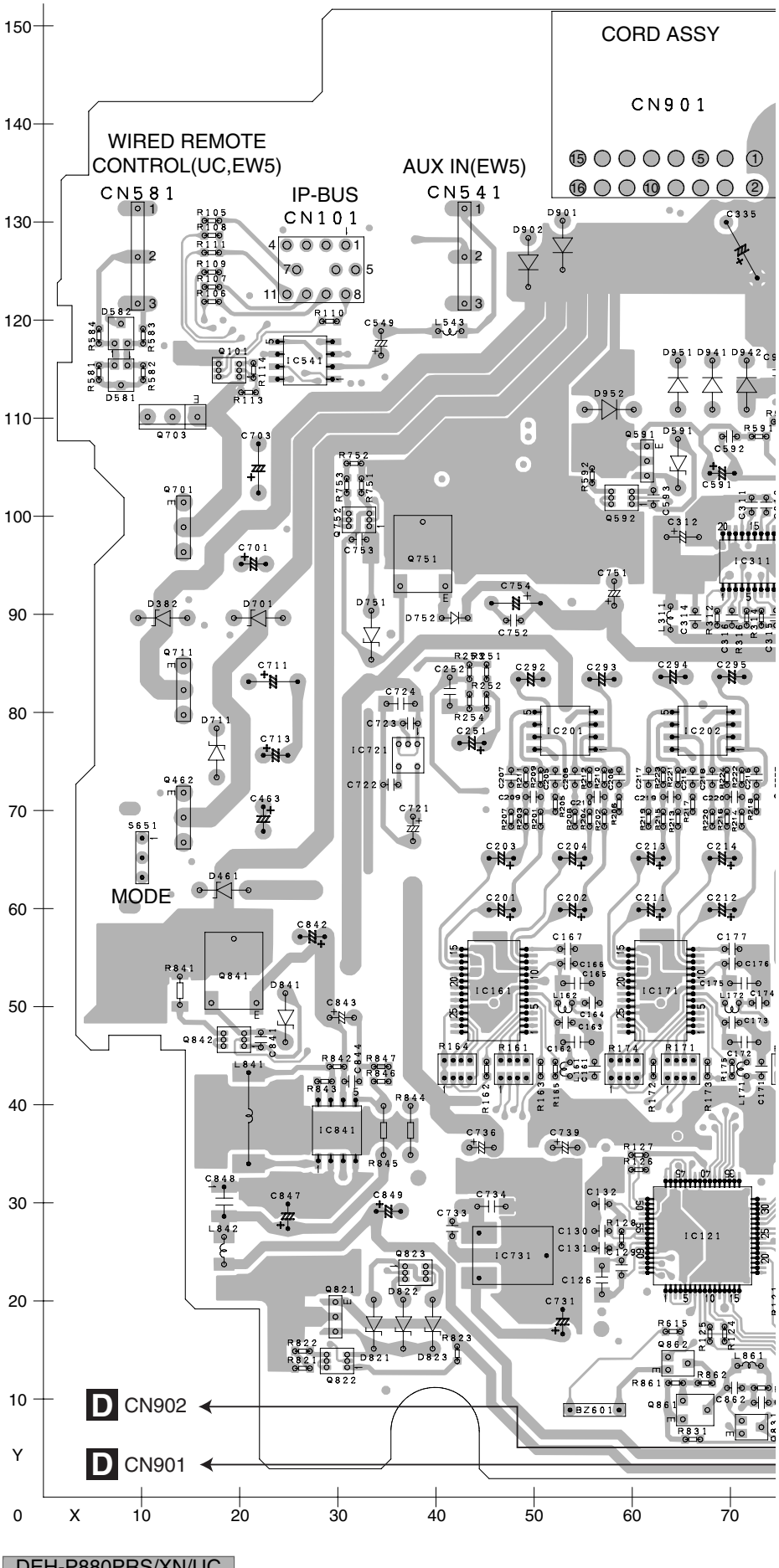
4. PCB CONNECTION DIAGRAM
4.1 TUNER AMP UNIT

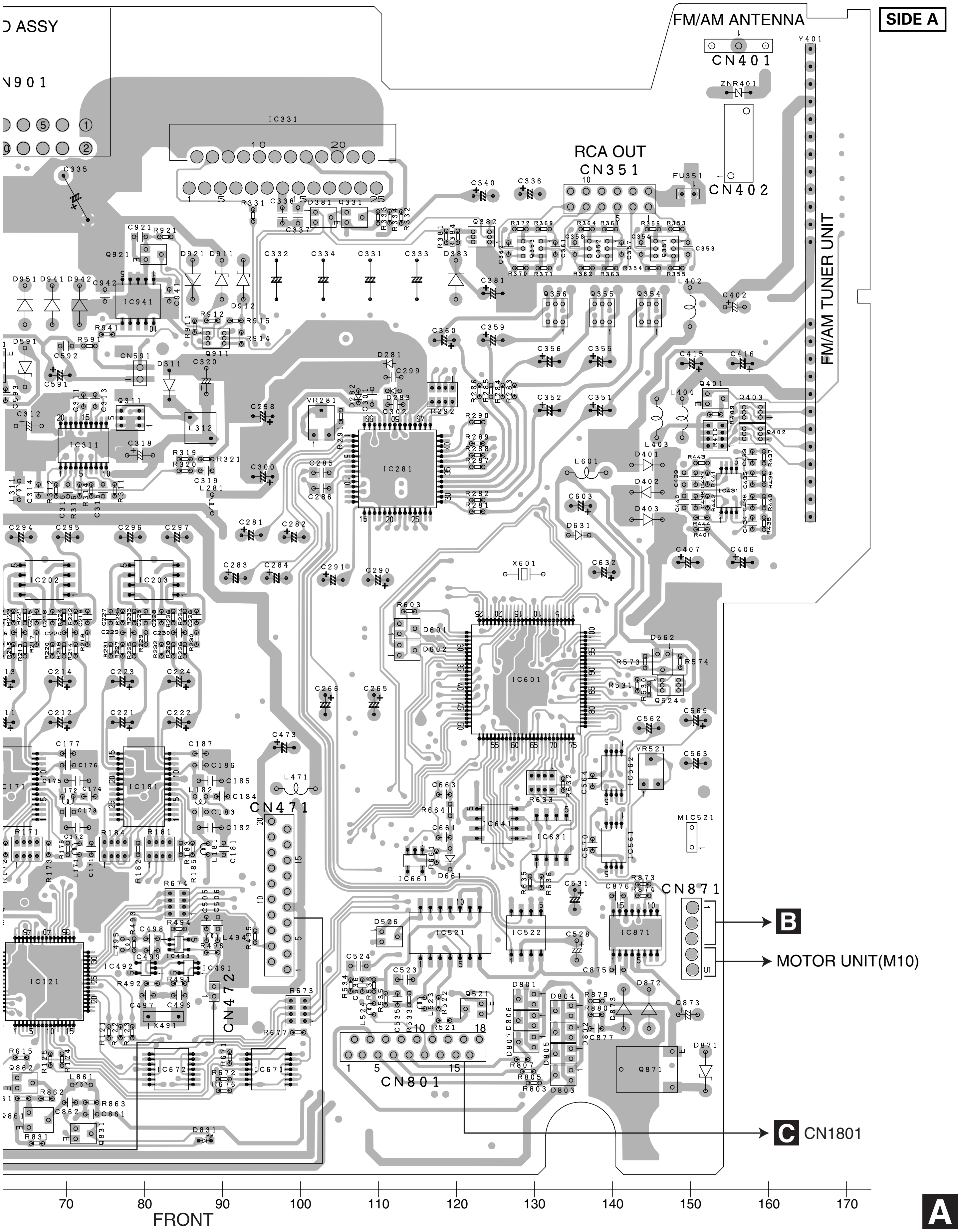
NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



A TUNER AMP UNIT

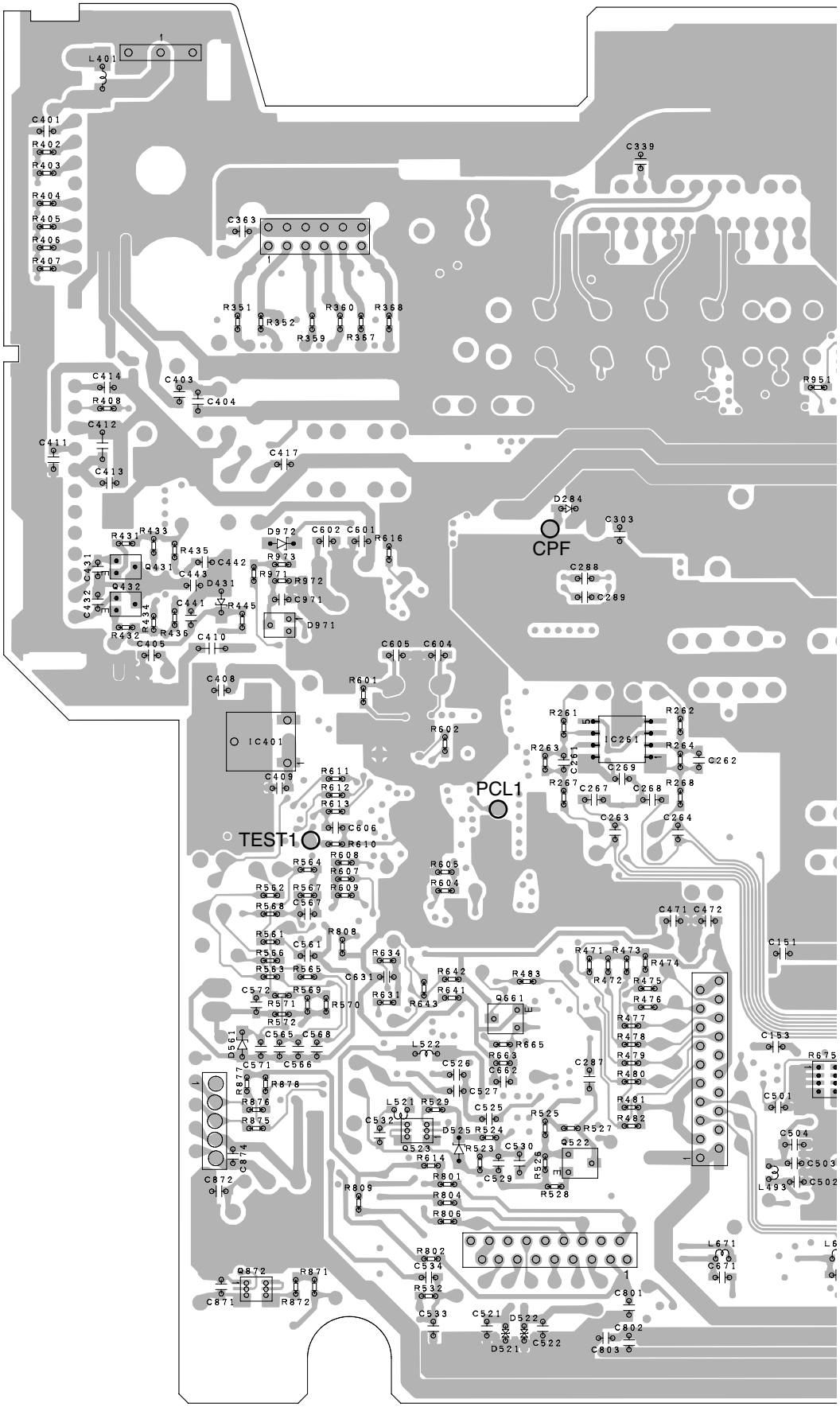




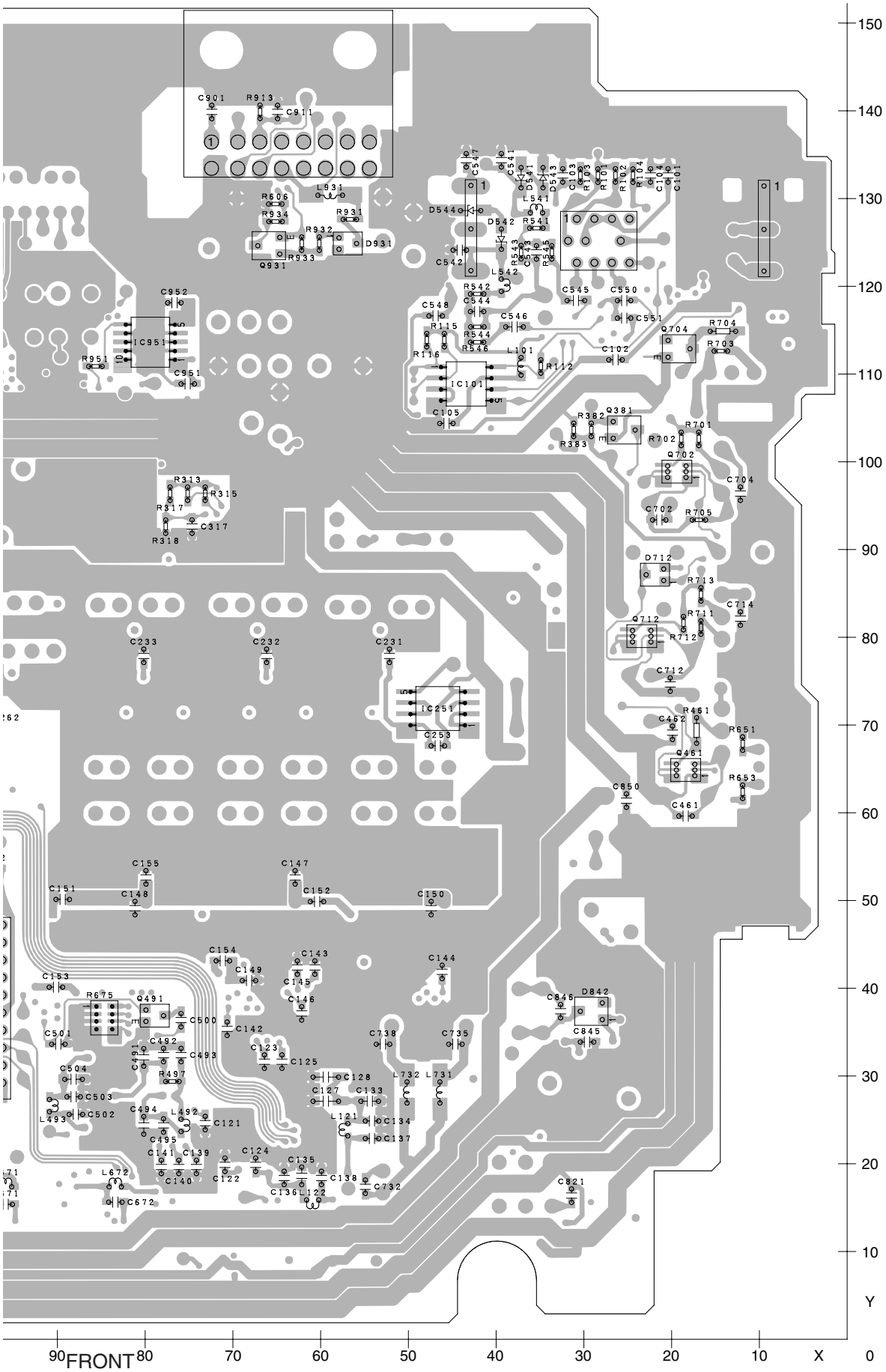
SIDE A
FM/AM ANTENNA
CN401
RCA OUT
CN351
CN402
FM/AM TUNER UNIT
IC331
IC281
IC601
CN471
CN472
CN801
CN871
B
MOTOR UNIT(M10)
C
CN1801
FRONT
A

A
B
C
D
E
F

A TUNER AMP UNIT



SIDE B

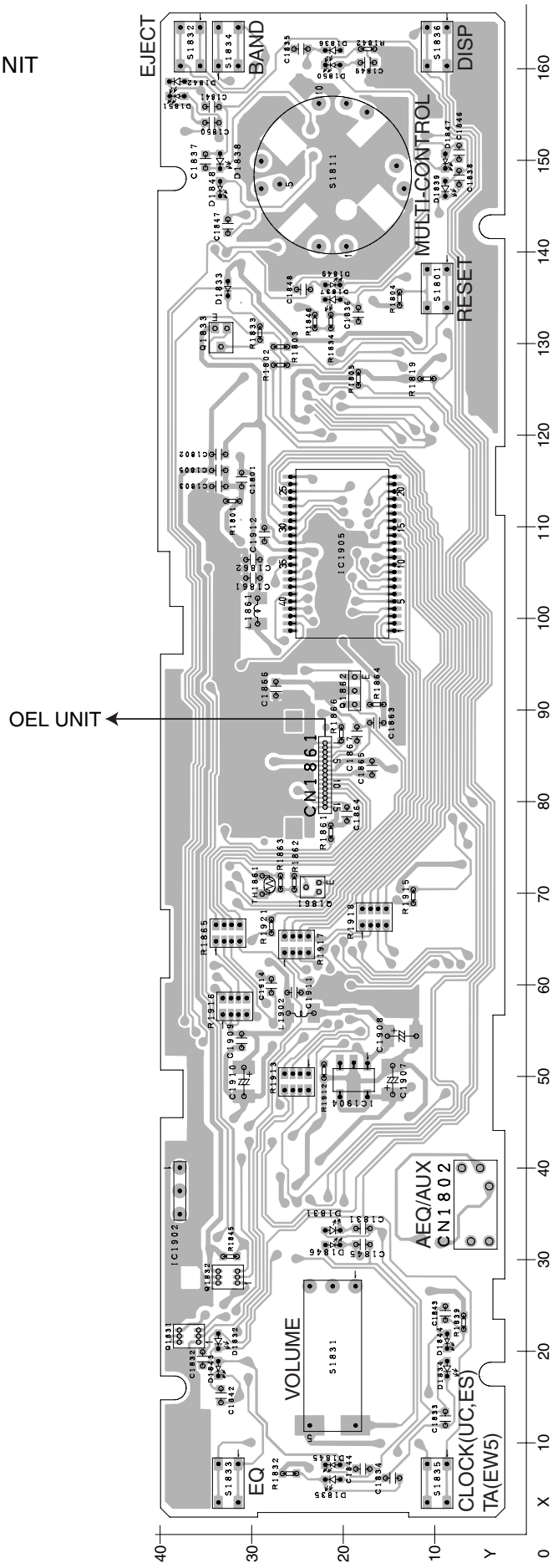

C901
R913
C911
L931
R606
R934
R931
R932
D931
R933
Q931
C952
IC951
R951
C951
C547
C541
C540
C543
C103
R103
R101
R102
R104
C104
C101
D544
L541
D542
R541
R543
C543
R545
C542
L542
R542
C548
C544
C546
C545
C550
C551
R115
R544
R546
R116
L101
R112
IC101
C105
C102
Q704
R704
R703
R382
Q381
R383
R702
R701
Q702
C704
C702
R705
R313
R315
R317
C317
R318
D712
R713
C714
R711
Q712
R712
C712
R461
C462
R651
Q461
R653
C850
C461
C233
C232
C231
IC251
C253
C155
C147
C151
C148
C152
C150
C154
C143
C149
C145
C144
C153
C146
R675
Q491
C500
C142
C501
C492
C123
C125
C493
C504
R497
C128
C738
C735
C127
C133
L732
L731
C503
C494
L492
L121
C134
C502
L493
C121
C495
C137
C141
C139
C124
C135
C140
C122
C138
C136
L122
C732
L672
C672
D842
C846
C845
C821
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Y
90
FRONT
80
70
60
50
40
30
20
10
X
0

A

4.2 KEYBOARD UNIT

C KEYBOARD UNIT

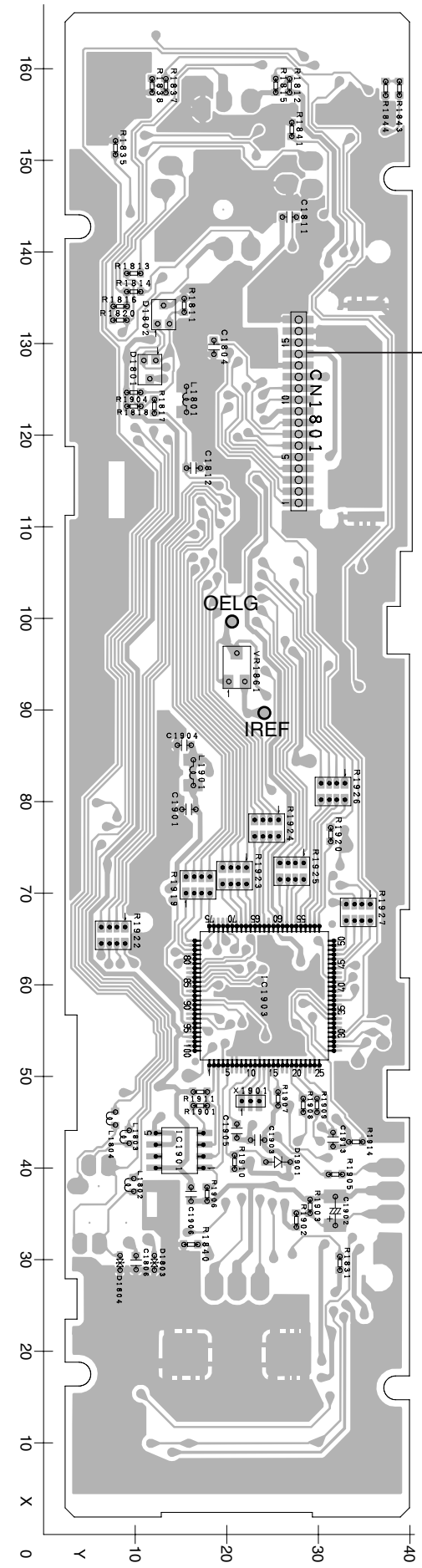
SIDE A



C

C KEYBOARD UNIT

SIDE B

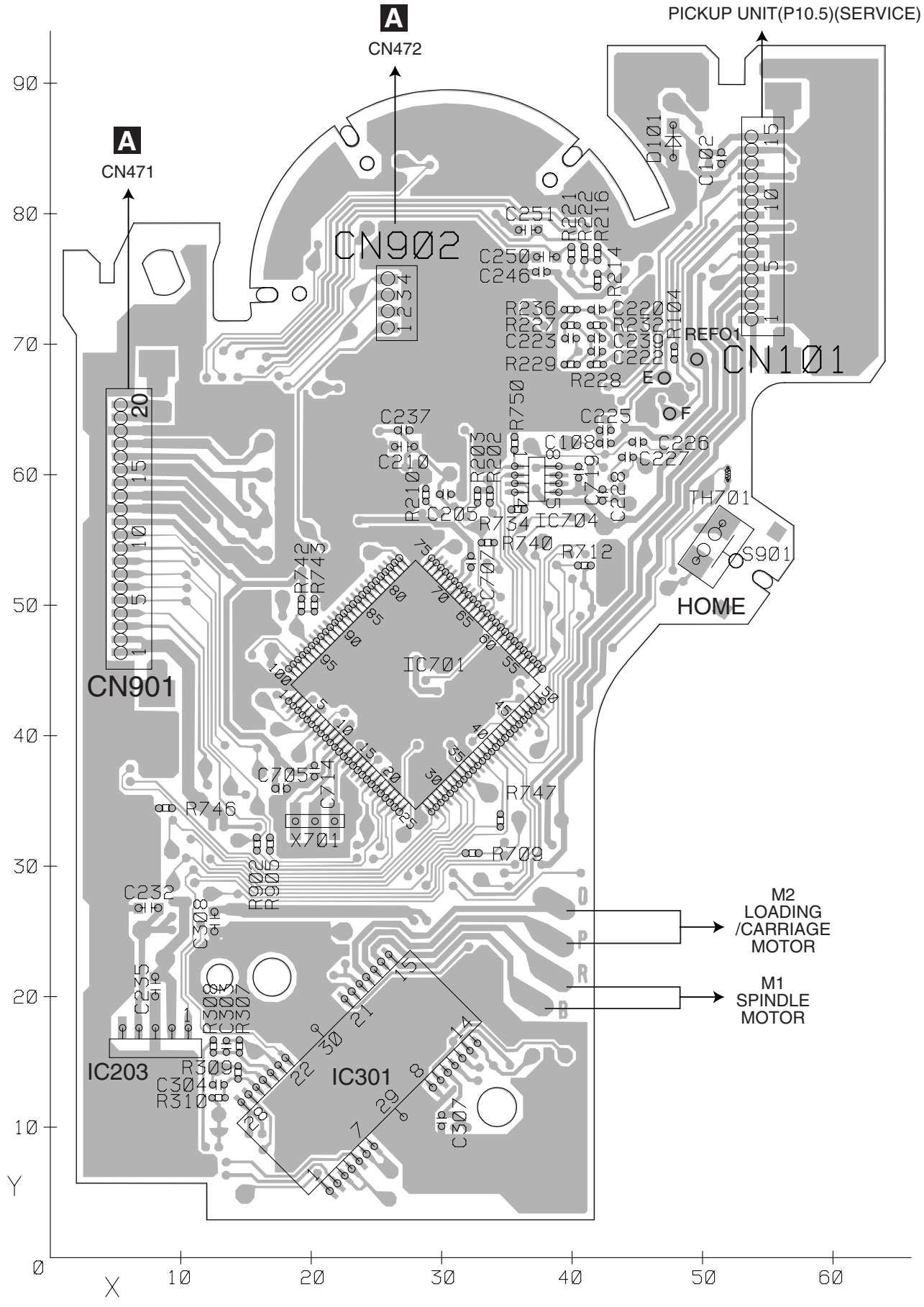


C

4.3 CD CORE UNIT(S10.5COMP1)

D CD CORE UNIT(S10.5COMP1)

SIDE A



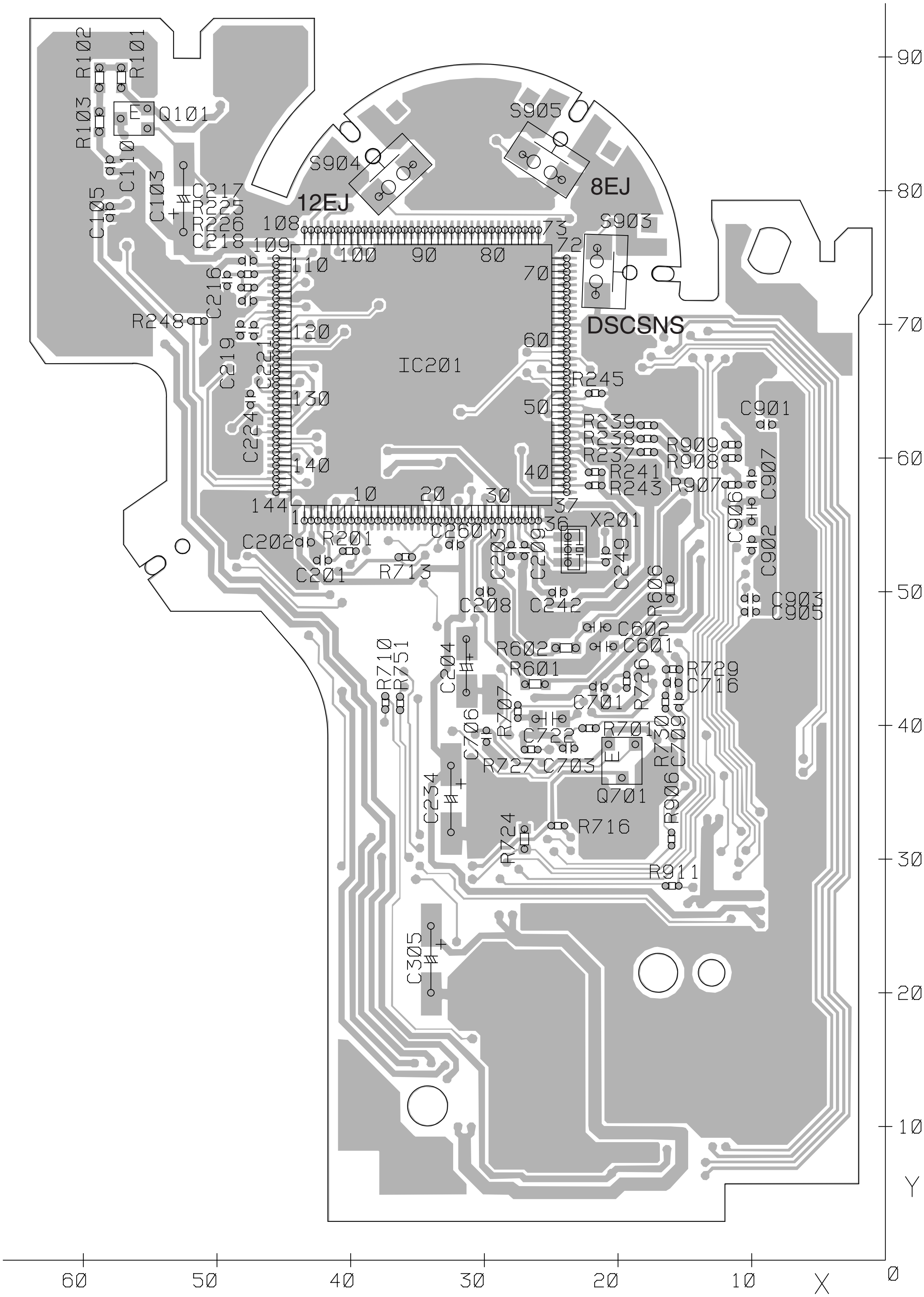
D

5 6 7 8

D CD CORE UNIT(S10.5COMP1)

SIDE B

A



B

C

D

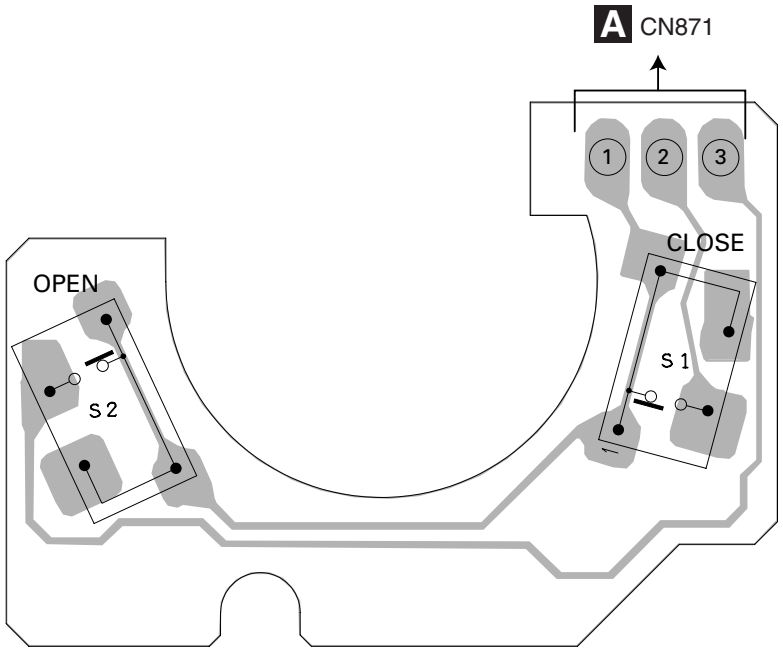
E

F

4.4 SWITCH UNIT

A

B SWITCH UNIT



B

5. ELECTRICAL PARTS LIST

NOTE:

- *Parts whose parts numbers are omitted are subject to being not supplied.*
- *The part numbers shown below indicate chip components.*

  Chip Resistor

  RS1/◯S◯◯◯J,RS1/◯◯S◯◯◯J

  Chip Capacitor (except for CQS.....)

  CKS....., CCS....., CSZS.....
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Meaning of the figures and others in the parentheses in the parts list.*

  Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.

  IC 301 (A, 91, 111) IC NJM2068V

Circuit Symbol and No. **Part No.**

Unit Number : CWN1478(UC model)
Unit Number : CWN1479(ES model)
Unit Name : Tuner Amp Unit
Unit Number : CWN1477(EW5 model)
Unit Name : Tuner Amp Unit
Unit Number : CWS1389
Unit Name : Switch Unit
Unit Number :
Unit Name : Keyboard Unit
Unit Number : CWX3381
Unit Name : CD Core Unit(S10.5COMP1)

A

Unit Number : CWN1478(UC model)
Unit Number : CWN1479(ES model)
Unit Name : Tuner Amp Unit

MISCELLANEOUS

IC 101	(B,43,109) IC	HA12241FP
IC 121	(A,67,27) IC	AK7732VT
IC 161	(A,46,52) IC	PCM1793DB
IC 171	(A,63,52) IC	PCM1793DB
IC 181	(A,80,52) IC	PCM1793DB
IC 201	(A,53,78) IC	NJM2114M
IC 202	(A,67,78) IC	NJM2114M
IC 203	(A,81,78) IC	NJM2114M
IC 251	(B,47,72) IC	NJM4558MD
IC 261	(B,107,73) IC	NJM4558MD
IC 281	(A,112,92) IC	PM9009A
IC 331	(A,98,134) IC	PAL007B
IC 401	(B,147,73) IC	NJM2885DL1-33
IC 431	(A,155,90) IC	NJM4558V
IC 491	(A,86,28) IC	TC7SU04FU
IC 492	(A,80,28) IC	TC7S04FU
IC 493	(A,84,31) IC	TC7SH08FUS1
IC 521	(A,119,33) IC	TC4066BF
IC 522	(A,129,33) IC	BA3121F
IC 601	(A,129,65) IC	PEG178A
IC 631	(A,132,45) IC	BR25L320F-W
IC 661	(A,115,42) IC	S-80835CNMC-B8U
IC 671	(A,96,15) IC	TC74VHCT08AFTS1
IC 672	(A,83,15) IC	TC74VHC08FTS1
IC 721	(A,37,76) IC	NJM2872F05
IC 731	(A,49,25) IC	NJM2885DL1-33
IC 841	(A,30,37) IC	NJM2360M
IC 871	(A,143,33) IC	BA6288FS
IC 941	(A,79,114) IC	TPD1018F
Q 101	(A,19,115) Transistor	UMF23N
Q 331	(A,107,125) Transistor	DTC124EU
Q 351	(A,147,121) Transistor	IMH23
Q 352	(A,138,121) Transistor	IMH23
Q 353	(A,130,121) Transistor	IMH23
Q 354	(A,145,112) Transistor	IMH23
Q 355	(A,139,112) Transistor	IMH23
Q 356	(A,133,112) Transistor	IMH23
Q 381	(B,25,104) Transistor	2SC3052-12
Q 382	(A,123,122) Transistor	UMD3N
Q 431	(B,160,92) Transistor	2SA1576
Q 432	(B,160,88) Transistor	2SA1576
Q 461	(B,18,65) Transistor	UMD3N
Q 462	(A,14,69) Transistor	2SD2396
Q 521	(A,122,23) Transistor	DTC114EU
Q 522	(B,111,28) Transistor	2SC3052-12
Q 523	(B,129,31) Transistor	UMD2N
Q 524	(A,147,65) Transistor	UMD2N
Q 591	(A,60,106) Transistor	2SD1767
Q 592	(A,59,102) Transistor	UMD3N
Q 661	(B,119,43) Transistor	2SC3052-12
Q 701	(A,14,99) Transistor	2SD2396
Q 702	(B,19,99) Transistor	UMD3N
Q 711	(A,14,82) Transistor	2SD2396
Q 712	(B,23,80) Transistor	UMD3N
Q 751	(A,39,98) Transistor	2SD1760F5
Q 752	(A,32,100) Transistor	UMD3N

Circuit Symbol and No.		Part No.
Q 821	(A,28,18) Transistor	2SD1767
Q 822	(A,30,14) Transistor	UMD3N
Q 823	(A,38,23) Transistor	UMH1N
Q 831	(A,72,7) Transistor	DTC114EU
Q 841	(A,19,55) Transistor	2SD1760F5
Q 842	(A,19,47) Transistor	UMD3N
Q 861	(A,66,9) Transistor	2SB710A
Q 862	(A,65,14) Transistor	DTC114EU
Q 871	(A,143,15) Transistor	2SD1760F5
Q 872	(B,146,14) Transistor	UMD3N
Q 911	(A,89,109) Transistor	UMX1N
Q 921	(A,81,120) Transistor	DTC114EU
Q 931	(B,66,125) Transistor	2SA1235A-12
D 281	(A,111,106) Diode	RB520S-30
D 282	(A,107,102) Diode	1SS400
D 283	(A,112,102) Diode	RB521S-30
D 284	(B,112,98) Diode	RB521S-30
D 381	(A,103,125) Diode	DAN202U
D 382	(A,12,90) Diode	HZS9L(A2)
D 383	(A,120,117) Diode	1SS133
D 401	(A,144,93) Diode	1SR154-400
D 402	(A,144,89) Diode	1SR154-400
D 403	(A,144,86) Diode	1SR154-400
D 431	(B,150,88) Diode	UDZS5R6(B)
D 461	(A,18,62) Diode	HZS7L(C3)
D 521	(B,119,9) Diode	RSB6R8S
D 522	(B,117,9) Diode	RSB6R8S
D 525	(B,124,29) Diode	HZU3R9(B1)
D 526	(A,111,32) Diode	DAN202U
D 581	(A,8,114) Diode(UC)	DAN202U
D 582	(A,8,119) Diode(UC)	DAP202U
D 591	(A,65,105) Diode	HZS11L(B2)
D 631	(A,136,84) Diode	MA111
D 661	(A,119,42) Diode	MA111
D 701	(A,22,90) Diode	HZS9L(B2)
D 711	(A,18,76) Diode	HZS9L(B3)
D 712	(B,22,87) Diode	DAN202U
D 751	(A,33,88) Diode	HZS6L(B3)
D 752	(A,42,90) Diode	RB551V-30
D 801	(A,129,24) Diode Network	DA204U
D 802	(A,134,20) Diode Network	DA204U
D 803	(A,134,15) Diode Network	DA204U
D 804	(A,134,23) Diode Network	DA204U
D 805	(A,134,17) Diode Network	DA204U
D 806	(A,129,22) Diode Network	DA204U
D 807	(A,129,19) Diode Network	DA204U
D 821	(A,34,18) Diode	HZS11L(A2)
D 822	(A,37,18) Diode(UC)	HZS6L(C3)
D 823	(A,40,18) Diode	HZS7L(B3)
D 831	(A,88,6) LED(UC)	SML412BC5T(NP)
D 831	(A,88,6) LED(ES)	NECWB205-5780
D 841	(A,25,49) Diode	HZS9L(C2)
D 842	(B,29,37) Diode	RB411D
D 871	(A,152,15) Diode	HZS7L(B2)
D 872	(A,145,23) Diode	1SS133
D 873	(A,141,23) Diode	1SS133
D 901	(A,53,128) Diode	MPG06G-6415G50
D 902	(A,49,126) Diode	MPG06G-6415G50
D 911	(A,90,117) Diode	HZS7L(C3)
D 912	(A,93,117) Diode	HZS7L(A1)

Circuit Symbol and No.		Part No.
D 921	(A,86,117) Diode	MPG06G-6415G50
D 931	(B,57,125) Diode	DAN202U
D 941	(A,68,113) Diode	MPG06G-6415G50
D 942	(A,72,113) Diode	MPG06G-6415G50
D 971	(B,143,85) Diode Network	DA204U
D 972	(B,143,94) Diode	HZU7L(C2)
ZNR401	(A,156,141) Surge Protector	RCCA-201Q31UA-PI
L 101	(B,37,111) Inductor	LCTC3R3K2125
L 121	(B,57,24) Inductor	CTF1379
L 122	(B,61,16) Inductor	CTF1379
L 161	(A,54,44) Inductor	CTF1379
L 162	(A,53,50) Inductor	CTF1379
L 171	(A,72,44) Inductor	CTF1379
L 172	(A,70,50) Inductor	CTF1379
L 181	(A,88,44) Inductor	CTF1379
L 182	(A,87,50) Inductor	CTF1379
L 281	(A,89,88) Inductor	LCTAW2R2J2520
L 401	(B,162,144) Chip Coil	LCTAW4R7J2520
L 402	(A,150,113) Inductor	LAU1R0K
L 403	(A,146,99) Inductor	LAU1R0K
L 404	(A,149,99) Inductor	LAU2R2K
L 471	(A,99,51) Ferri-Inductor	LAU100K
L 492	(B,76,24) Inductor	CTF1379
L 493	(B,91,27) Inductor	CTF1389
L 494	(A,89,32) Inductor	CTF1389
L 521	(B,130,33) Inductor	LCTC1R0K1608
L 522	(B,128,39) Inductor	LCTAW2R2J2520
L 523	(A,116,24) Inductor	CTF1334
L 524	(A,109,23) Inductor	CTF1334
L 601	(A,137,92) Ferri-Inductor	LAU100K
L 671	(B,96,17) Inductor	LCTC4R7K1608
L 672	(B,83,17) Inductor	LCTC4R7K1608
L 731	(B,46,28) Chip Coil	LCTAW1R0J2520
L 732	(B,50,28) Chip Coil	LCTAW1R0J2520
L 841	(A,21,39) Inductor	CTF1660
L 842	(A,18,25) Inductor	LCTAW2R2J3225
L 931	(B,59,130) Inductor	LCTAW2R2J2520
X 491	(A,82,22) Crystal Resonator 16.934 MHz	CSS1620
X 601	(A,129,79) Crystal Resonator 15.000 MHz	CSS1653
S 651	(A,10,65) Switch(MODE)	CSH1051
VR281	(A,103,98) Semi-fixed 15 kΩ(B)	CCP1397
⚠FU351	(A,150,128) Fuse 3 A	CEK1286
Y 401	(A,165,146) FM/AM Tuner Unit	CWE1802
BZ601	(A,56,9) Buzzer	CPV1062

RESISTORS

R 101	(B,28,133)	RS1/16S150J
R 102	(B,26,133)	RS1/16S470J
R 103	(B,30,133)	RS1/16S101J
R 104	(B,24,133)	RS1/16S101J
R 105	(A,17,130)	RS1/16S181J
R 106	(A,17,122)	RS1/16S181J
R 107	(A,17,123)	RS1/16S223J
R 108	(A,17,129)	RS1/16S223J
R 109	(A,17,125)	RS1/16S102J
R 110	(A,29,120)	RS1/16S222J
R 111	(A,17,127)	RS1/16S102J
R 112	(B,35,111)	RS1/16S102J
R 113	(A,21,113)	RS1/16S332J
R 114	(A,21,115)	RS1/16S562J

Circuit Symbol and No.		Part No.
R 115	(B,46,114)	RS1/16S472J
R 116	(B,48,114)	RS1/16S472J
R 121	(A,75,20)	RS1/16S101J
R 122	(A,77,20)	RS1/16S101J
R 123	(A,78,20)	RS1/16S101J
R 124	(A,69,17)	RS1/16S681J
R 125	(A,68,17)	RS1/16S681J
R 126	(A,61,33)	RS1/16S104J
R 127	(A,61,35)	RS1/16S104J
R 128	(A,59,26)	RS1/16S153J
R 161	(A,48,44)	RAB4C101J
R 162	(A,45,44)	RS1/16S473J
R 163	(A,51,44)	RS1/16S101J
R 164	(A,42,44)	RAB4C101J
R 165	(A,52,44)	RS1/16S473J
R 171	(A,65,44)	RAB4C101J
R 172	(A,62,44)	RS1/16S473J
R 173	(A,68,44)	RS1/16S101J
R 174	(A,59,44)	RAB4C101J
R 175	(A,70,44)	RS1/16S473J
R 181	(A,82,44)	RAB4C101J
R 182	(A,79,44)	RS1/16S473J
R 183	(A,85,44)	RS1/16S101J
R 184	(A,76,44)	RAB4C101J
R 185	(A,86,44)	RS1/16S473J
R 201	(A,51,69)	RN1/16SE1502D
R 202	(A,57,69)	RN1/16SE1502D
R 203	(A,49,69)	RN1/16SE1502D
R 204	(A,56,69)	RN1/16SE1502D
R 205	(A,52,71)	RN1/16SE1502D
R 206	(A,59,71)	RN1/16SE1502D
R 207	(A,48,69)	RN1/16SE1502D
R 208	(A,54,69)	RN1/16SE1502D
R 209	(A,51,73)	RN1/16SE6800D
R 210	(A,57,73)	RN1/16SE6800D
R 211	(A,49,73)	RN1/16SE6800D
R 212	(A,56,73)	RN1/16SE6800D
R 213	(A,65,69)	RN1/16SE1502D
R 214	(A,71,69)	RN1/16SE1502D
R 215	(A,63,69)	RN1/16SE1502D
R 216	(A,70,69)	RN1/16SE1502D
R 217	(A,66,71)	RN1/16SE1502D
R 218	(A,73,71)	RN1/16SE1502D
R 219	(A,62,69)	RN1/16SE1502D
R 220	(A,68,69)	RN1/16SE1502D
R 221	(A,65,73)	RN1/16SE6800D
R 222	(A,71,73)	RN1/16SE6800D
R 223	(A,63,73)	RN1/16SE6800D
R 224	(A,70,73)	RN1/16SE6800D
R 225	(A,79,69)	RN1/16SE1502D
R 226	(A,85,69)	RN1/16SE1502D
R 227	(A,77,69)	RN1/16SE1502D
R 228	(A,84,69)	RN1/16SE1502D
R 229	(A,80,71)	RN1/16SE1502D
R 230	(A,87,71)	RN1/16SE1502D
R 231	(A,76,69)	RN1/16SE1502D
R 232	(A,82,69)	RN1/16SE1502D
R 233	(A,79,73)	RN1/16SE6800D
R 234	(A,85,73)	RN1/16SE6800D
R 235	(A,77,73)	RN1/16SE6800D

Circuit Symbol and No.		Part No.
R 236	(A,84,73)	RN1/16SE6800D
R 251	(A,45,84)	RS1/16S332J
R 252	(A,45,81)	RS1/16S563J
R 253	(A,43,84)	RS1/16S682J
R 254	(A,43,81)	RS1/16S473J
R 261	(B,113,74)	RS1/16S223J
R 262	(B,100,75)	RS1/16S223J
R 263	(B,115,71)	RS1/16S153J
R 264	(B,100,71)	RS1/16S153J
R 267	(B,113,67)	RS1/16S101J
R 268	(B,100,67)	RS1/16S101J
R 281	(A,123,87)	RS1/16S390J
R 282	(A,123,88)	RS1/16S390J
R 283	(A,127,102)	RS1/16S390J
R 284	(A,126,102)	RS1/16S390J
R 285	(A,124,102)	RS1/16S390J
R 286	(A,123,102)	RS1/16S390J
R 287	(A,123,93)	RS1/16S0R0J
R 288	(A,123,94)	RS1/16S0R0J
R 289	(A,123,96)	RS1/16S0R0J
R 290	(A,123,98)	RS1/16S0R0J
R 291	(A,105,99)	RS1/16S103J
R 292	(A,118,102)	RAB4C101J
R 331	(A,94,125)	RS1/16S103J
R 332	(A,113,125)	RS1/16S331J
R 333	(A,110,125)	RS1/16S103J
R 334	(A,111,125)	RS1/16S103J
R 351	(B,148,118)	RS1/16S390J
R 352	(B,145,118)	RS1/16S390J
R 353	(A,148,123)	RS1/16S223J
R 354	(A,145,118)	RS1/16S223J
R 359	(B,140,118)	RS1/16S390J
R 360	(B,137,118)	RS1/16S390J
R 361	(A,140,123)	RS1/16S223J
R 362	(A,137,118)	RS1/16S223J
R 367	(B,135,118)	RS1/16S390J
R 368	(B,132,118)	RS1/16S390J
R 369	(A,131,123)	RS1/16S223J
R 370	(A,128,118)	RS1/16S223J
R 381	(A,119,122)	RS1/16S473J
R 382	(B,29,104)	RS1/16S103J
R 383	(B,31,104)	RS1/16S473J
R 384	(A,120,122)	RS1/16S221J
R 401	(A,151,85)	RS1/16S471J
R 402	(B,168,136)	RS1/16S681J
R 403	(B,168,134)	RS1/16S681J
R 404	(B,168,131)	RS1/16S681J
R 405	(B,168,128)	RS1/16S681J
R 406	(B,168,126)	RS1/16S681J
R 407	(B,168,124)	RS1/16S681J
R 408	(B,162,109)	RS1/16S681J
R 431	(B,160,94)	RS1/16S222J
R 432	(B,160,85)	RS1/16S222J
R 433	(B,157,94)	RS1/16S561J
R 434	(B,157,86)	RS1/16S561J
R 437	(A,159,94)	RS1/16S103J
R 438	(A,159,85)	RS1/16S103J
R 439	(A,159,91)	RS1/16S103J
R 440	(A,159,88)	RS1/16S103J
R 441	(A,152,91)	RS1/16S103J

Circuit Symbol and No.		Part No.
R 442	(A,152,88)	RS1/16S103J
R 443	(A,151,93)	RS1/16S103J
R 444	(A,151,86)	RS1/16S103J
R 445	(B,147,86)	RS1/16S681J
R 461	(B,17,69)	RS1/4SA561J
R 471	(B,110,49)	RS1/16S682J
R 472	(B,108,49)	RS1/16S682J
R 473	(B,106,49)	RS1/16S682J
R 474	(B,104,49)	RS1/16S682J
R 475	(B,104,46)	RS1/16S221J
R 476	(B,104,44)	RS1/16S221J
R 477	(B,106,42)	RS1/16S221J
R 478	(B,106,40)	RS1/16S221J
R 479	(B,106,38)	RS1/16S221J
R 480	(B,106,36)	RS1/16S681J
R 481	(B,106,34)	RS1/16S473J
R 482	(B,106,32)	RS1/16S473J
R 483	(B,117,47)	RS1/16S102J
R 491	(A,84,26)	RN1/16SE1003D
R 492	(A,81,26)	RS1/16S152J
R 493	(A,79,31)	RS1/16S101J
R 494	(A,84,33)	RS1/16S103J
R 495	(A,94,32)	RS1/16S472J
R 497	(B,77,29)	RS1/16S0R0J
R 521	(A,118,22)	RS1/16S103J
R 523	(B,122,28)	RS1/16S104J
R 524	(B,121,30)	RS1/16S222J
R 525	(B,115,31)	RS1/16S683J
R 526	(B,115,28)	RS1/16S153J
R 527	(B,112,31)	RS1/16S682J
R 528	(B,114,25)	RS1/16S152J
R 529	(B,127,33)	RS1/16S561J
R 530	(A,145,64)	RS1/16S682J
R 531	(A,143,65)	RS1/16S683J
R 533	(A,114,24)	RS1/16S102J
R 534	(A,106,26)	RS1/16S102J
R 535	(A,111,24)	RS1/16S223J
R 536	(A,109,26)	RS1/16S223J
R 581	(A,6,115)	RS1/16S103J
R 582	(A,10,115)	RS1/16S104J
R 583	(A,10,118) (UC)	RS1/16S102J
R 584	(A,6,118) (UC)	RS1/16S102J
R 591	(A,73,108)	RS1/16S1R0J
R 592	(A,56,104)	RS1/16S391J
R 601	(B,134,78)	RS1/16S0R0J
R 602	(B,126,73)	RS1/16S473J
R 603	(A,114,74)	RS1/16S473J
R 604	(B,126,57) (ES)	RS1/16S104J
R 605	(B,126,59) (UC)	RS1/16S104J
R 606	(B,65,129)	RS1/16S473J
R 607	(B,136,58)	RS1/16S104J
R 608	(B,136,60)	RS1/16S104J
R 609	(B,136,56)	RS1/16S104J
R 610	(B,137,62)	RS1/16S473J
R 611	(B,137,69)	RS1/16S681J
R 612	(B,137,67)	RS1/16S681J
R 613	(B,137,65)	RS1/16S681J
R 614	(B,127,27)	RS1/16S473J
R 615	(A,64,17)	RS1/16S102J
R 616	(B,132,93)	RS1/16S473J

Circuit Symbol and No.		Part No.
R 631	(B,132,45)	RS1/16S104J
R 633	(A,131,52)	RAB4C681J
R 634	(B,132,49)	RS1/16S104J
R 635	(A,129,39)	RS1/16S104J
R 636	(A,131,39)	RS1/16S104J
R 642	(B,125,47)	RS1/16S104J
R 651	(B,12,68)	RS1/16S0R0J
R 653	(B,12,62)	RS1/16S473J
R 661	(A,117,43)	RS1/16S183J
R 663	(B,119,38)	RS1/16S473J
R 664	(A,119,49)	RS1/16S102J
R 665	(B,119,40)	RS1/16S222J
R 671	(A,91,17)	RS1/16S681J
R 672	(A,90,14)	RS1/16S681J
R 673	(A,100,23)	RAB4C681J
R 674	(A,84,37)	RAB4C272J
R 675	(B,85,37)	RAB4C472J
R 676	(A,90,13)	RS1/16S473J
R 677	(A,100,20)	RS1/16S473J
R 701	(B,17,103)	RS1/16S471J
R 702	(B,19,103)	RS1/16S561J
R 705	(B,17,93)	RS1/16S473J
R 712	(B,19,82)	RS1/16S471J
R 713	(B,17,85)	RS1/16S471J
R 751	(A,32,103)	RS1/16S333J
R 752	(A,32,105)	RS1/16S681J
R 753	(A,31,103)	RS1/16S821J
R 801	(B,125,25)	RS1/16S222J
R 802	(B,127,17)	RS1/16S222J
R 803	(A,130,14)	RS1/16S222J
R 804	(B,125,23)	RS1/16S222J
R 805	(A,129,15)	RS1/16S222J
R 806	(B,125,21)	RS1/16S222J
R 807	(A,128,17)	RS1/16S222J
R 808	(B,137,51)	RS1/16S104J
R 809	(B,135,23)	RS1/16S104J
R 821	(A,26,13)	RS1/16S221J
R 822	(A,26,15)	RS1/16S271J
R 823	(A,42,15)	RS1/16S473J
R 831	(A,66,6) (UC)	RS1/16S221J
R 831	(A,66,6) (ES)	RS1/16S181J
R 841	(A,14,52)	RS1/4SA471J
R 842	(A,30,44)	RS1/16S1R0J
R 843	(A,29,42)	RS1/16S391J
R 844	(A,37,37)	RD1/4PU332J
R 845	(A,35,37)	RD1/4PU332J
R 846	(A,34,42)	RS1/16S121J
R 861	(A,64,12)	RS1/16S103J
R 862	(A,67,12)	RS1/16S222J
R 863	(A,73,11)	RS1/16S473J
R 871	(B,140,14)	RS1/16S471J
R 872	(B,142,14)	RS1/16S471J
R 873	(A,144,39)	RS1/16S102J
R 874	(A,144,38)	RS1/16S102J
R 875	(B,146,31)	RS1/16S102J
R 876	(B,146,33)	RS1/16S102J
R 877	(B,147,36)	RS1/16S104J
R 878	(B,145,36)	RS1/16S104J
R 911	(A,86,111)	RS1/16S473J
R 912	(A,89,111)	RS1/16S104J

Circuit Symbol and No.		Part No.
R 913	(B,67,140)	RS1/16S472J
R 914	(A,92,109)	RS1/16S473J
R 915	(A,92,111)	RS1/16S103J
R 921	(A,83,122)	RS1/16S103J
R 931	(B,57,128)	RS1/16S153J
R 932	(B,60,125)	RS1/16S472J
R 933	(B,62,125)	RS1/16S472J
R 934	(B,65,127)	RS1/16S102J
R 941	(A,75,110)	RS1/16S103J
R 971	(B,146,91)	RS1/16S102J
R 972	(B,143,90)	RS1/16S153J
R 973	(B,143,92)	RS1/16S102J

CAPACITORS

C 101	(B,20,133)	CKSRYB104K16
C 105	(B,46,104)	CKSRYB104K16
C 121	(B,73,25)	CKSRYB104K16
C 122	(B,71,20)	CKSRYB104K16
C 123	(B,66,32)	CKSRYB104K16
C 124	(B,67,20)	CKSRYB104K16
C 125	(B,64,32)	CKSRYB104K16
C 126	(A,57,22)	CKSYB106K6R3
C 127	(B,59,27)	CKSYB106K6R3
C 128	(B,59,30)	CKSYB106K6R3
C 129	(A,59,23)	CKSRYB104K16
C 130	(A,57,27)	CKSRYB104K16
C 131	(A,57,25)	CKSRYB682K50
C 132	(A,57,30)	CKSRYB104K16
C 134	(B,54,25)	CKSRYB103K50
C 135	(B,62,19)	CKSQYB225K10
C 136	(B,64,18)	CKSRYB103K50
C 137	(B,54,23)	CKSRYB473K25
C 138	(B,60,18)	CKSRYB473K25
C 139	(B,74,20)	CCSRCH470J50
C 140	(B,76,20)	CCSRCH470J50
C 141	(B,78,20)	CCSRCH470J50
C 142	(B,71,35)	CCSRCH470J50
C 143	(B,61,42)	CCSRCH470J50
C 144	(B,46,42)	CCSRCH470J50
C 145	(B,63,42)	CCSRCH470J50
C 146	(B,62,37)	CCSRCH470J50
C 147	(B,63,53)	CKSRYB102K50
C 161	(A,56,44)	CCSRCH102J50
C 162	(A,54,46)	CKSYB106K6R3
C 163	(A,53,48)	CCSRCH102J50
C 164	(A,56,50)	CCSRCH102J50
C 165	(A,54,52)	CKSYB106K6R3
C 166	(A,53,54)	CCSRCH102J50
C 167	(A,53,56)	CKSRYB105K6R3
C 171	(A,73,44)	CCSRCH102J50
C 172	(A,71,46)	CKSYB106K6R3
C 173	(A,70,48)	CCSRCH102J50
C 174	(A,73,50)	CCSRCH102J50
C 175	(A,71,52)	CKSYB106K6R3
C 176	(A,70,54)	CCSRCH102J50
C 177	(A,70,56)	CKSRYB105K6R3
C 181	(A,90,44)	CCSRCH102J50
C 182	(A,88,46)	CKSYB106K6R3
C 183	(A,87,48)	CCSRCH102J50

Circuit Symbol and No.			Part No.
C 184	(A,90,50)		CCSRCH102J50
C 185	(A,88,52)		CKSYB106K6R3
C 186	(A,87,54)		CCSRCH102J50
C 187	(A,87,56)		CKSRYB105K6R3
C 201	(A,47,60)	10 µF/16 V	CCH1532
C 202	(A,54,60)	10 µF/16 V	CCH1532
C 203	(A,47,65)	10 µF/16 V	CCH1532
C 204	(A,54,65)	10 µF/16 V	CCH1532
C 205	(A,52,73)		CCSRCH221J50
C 206	(A,59,73)		CCSRCH221J50
C 207	(A,48,73)		CCSRCH221J50
C 208	(A,54,73)		CCSRCH221J50
C 209	(A,50,71)		CCSRCH821J50
C 210	(A,56,71)		CCSRCH821J50
C 211	(A,62,60)	10 µF/16 V	CCH1532
C 212	(A,69,60)	10 µF/16 V	CCH1532
C 213	(A,62,65)	10 µF/16 V	CCH1532
C 214	(A,69,65)	10 µF/16 V	CCH1532
C 215	(A,66,73)		CCSRCH221J50
C 216	(A,73,73)		CCSRCH221J50
C 217	(A,62,73)		CCSRCH221J50
C 218	(A,68,73)		CCSRCH221J50
C 219	(A,64,71)		CCSRCH821J50
C 220	(A,70,71)		CCSRCH821J50
C 221	(A,77,60)	10 µF/16 V	CCH1532
C 222	(A,84,60)	10 µF/16 V	CCH1532
C 223	(A,77,65)	10 µF/16 V	CCH1532
C 224	(A,84,65)	10 µF/16 V	CCH1532
C 225	(A,80,73)		CCSRCH221J50
C 226	(A,87,73)		CCSRCH221J50
C 227	(A,76,73)		CCSRCH221J50
C 228	(A,82,73)		CCSRCH221J50
C 229	(A,78,71)		CCSRCH821J50
C 230	(A,84,71)		CCSRCH821J50
C 231	(B,52,78)		CKSRYB104K16
C 232	(B,66,78)		CKSRYB104K16
C 233	(B,80,78)		CKSRYB104K16
C 251	(A,44,77)	10 µF/16 V	CCH1532
C 252	(A,41,82)		CKSYB106K6R3
C 253	(B,47,68)		CKSRYB104K16
C 261	(B,113,71)		CCSRCH220J50
C 262	(B,98,71)		CCSRCH220J50
C 263	(B,107,63)		CKSRYB332K50
C 264	(B,101,63)		CKSRYB332K50
C 265	(A,109,62)		CEAL2R2M50
C 266	(A,103,62)		CEAL2R2M50
C 267	(B,110,67)		CKSQYB225K10
C 268	(B,103,67)		CKSQYB225K10
C 269	(B,107,69)		CKSRYB104K25
C 281	(A,94,84)		CEJQ2R2M50
C 282	(A,99,84)		CEJQ2R2M50
C 283	(A,92,78)		CEJQ2R2M50
C 284	(A,97,78)		CEJQ2R2M50
C 285	(A,103,92)		CKSQYB225K10
C 286	(A,103,90)		CKSQYB225K10
C 287	(B,110,37)		CKSQYB225K10
C 288	(B,111,90)		CKSRYB104K50
C 289	(B,111,88)		CKSRYB104K50
C 290	(A,110,78)		CEAL100M16
C 291	(A,104,78)		CEAL100M16

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
C 292	(A,50,83) 10 µF/16 V	CCH1563	C 473	(A,98,57)	CEJQ101M10
C 293	(A,57,83) 10 µF/16 V	CCH1563	C 491	(B,80,32)	CKSQYB225K10
C 294	(A,64,84) 10 µF/16 V	CCH1563	C 492	(B,78,32)	CKSRYB103K50
C 295	(A,70,84) 10 µF/16 V	CCH1563	C 494	(B,80,24)	CKSQYB225K10
C 296	(A,78,84) 10 µF/16 V	CCH1563	C 495	(B,78,24)	CKSRYB103K50
C 297	(A,84,84) 10 µF/16 V	CCH1563	C 496	(A,84,25)	CCSRCH100D50
C 298	(A,95,99) 56 µF/10 V	CCH1701	C 497	(A,80,25)	CCSRCH100D50
C 299	(A,112,104)	CKSQYB474K16	C 498	(A,81,32)	CCSRCH220J50
C 300	(A,95,91) 56 µF/10 V	CCH1701	C 499	(A,81,31)	CCSRCH470J50
C 301	(A,109,102)	CKSQYB475K10	C 502	(B,88,26)	CKSRYB103K50
C 302	(A,112,101)	CKSQYB105K16	C 503	(B,88,28)	CKSRYB103K50
C 303	(B,107,95)	CKSRYB104K16	C 504	(B,88,30)	CKSQYB225K10
C 331	(A,109,117)	CFTNA274J50	C 505	(A,88,34)	CCSRCH151J50
C 332	(A,97,117)	CFTNA274J50	C 506	(A,89,34)	CCSRCH390J50
C 333	(A,115,117)	CFTNA274J50	C 521	(B,121,10)	CKSRYB221K50
C 334	(A,103,117)	CFTNA274J50	C 522	(B,115,10)	CKSRYB221K50
C 335	(A,71,127) 3 300 µF/16 V	CCH1547	C 523	(A,113,27)	CKSQYB105K10
C 336	(A,129,128) 10 µF/16 V	CCH1532	C 524	(A,107,29)	CKSQYB105K10
C 337	(A,100,125)	CKSQYB225K10	C 525	(B,121,32)	CKSRYB104K16
C 338	(A,98,125)	CKSQYB225K10	C 526	(B,124,37)	CKSRYB104K16
C 339	(B,105,135)	CKSRYB104K16	C 527	(B,124,35)	CKSRYB105K10
C 340	(A,123,127)	CEHAR330M10	C 528	(A,135,31)	CEAL100M16
C 351	(A,138,100) 10 µF/16 V	CCH1532	C 529	(B,120,28)	CCSRCH681J50
C 352	(A,132,100) 10 µF/16 V	CCH1532	C 530	(B,118,28)	CKSQYB225K10
C 355	(A,138,106) 10 µF/16 V	CCH1532	C 531	(A,135,37)	CEJQ101M6R3
C 356	(A,132,106) 10 µF/16 V	CCH1532	C 532	(B,133,31)	CKSRYB103K50
C 359	(A,125,109) 10 µF/16 V	CCH1532	C 533	(B,127,10)	CKSRYB104K16
C 360	(A,118,109) 10 µF/16 V	CCH1532	C 534	(B,127,15)	CKSRYB471K50
C 381	(A,125,115)	CEJQ220M16	C 535	(A,112,24)	CKSRYB682K50
C 401	(B,168,138)	CKSRYB103K50	C 536	(A,108,26)	CKSRYB682K50
C 402	(A,156,113)	CEAL101M10	C 591	(A,69,104)	CEJQ100M16
C 403	(B,154,110)	CKSRYB104K16	C 592	(A,70,108)	CKSRYB103K50
C 404	(B,152,109)	CKSQYB475K10	C 593	(A,62,102)	CKSRYB103K50
C 405	(B,157,82)	CKSRYB103K50	C 602	(B,138,94)	CKSRYB103K50
C 406	(A,157,80)	CEJQ101M10	C 603	(A,136,88)	CEJQ4R7M35
C 407	(A,150,80)	CEJQ220M25	C 604	(B,126,82)	CCSRCH180J50
C 408	(B,150,78)	CKSRYB103K50	C 605	(B,131,82)	CCSRCH180J50
C 409	(B,143,68)	CKSRYB103K50	C 606	(B,137,64)	CCSRCH470J50
C 410	(B,151,83)	CKSYB475K16	C 631	(B,132,48)	CKSRYB104K16
C 412	(B,162,105)	CKSYB475K16	C 632	(A,139,79)	CEJQ101M16
C 413	(B,162,101)	CKSRYB103K50	C 661	(A,118,45)	CKSRYB105K10
C 414	(B,162,111)	CKSRYB103K50	C 662	(B,119,36)	CKSRYB104K16
C 415	(A,150,106)	CEJQ470M10	C 671	(B,96,15)	CKSRYB104K16
C 416	(A,157,106)	CEJQ470M10	C 672	(B,83,16)	CKSRYB104K16
C 417	(B,143,103)	CKSRYB102K50	C 701	(A,21,95)	CEJQ101M16
C 431	(B,163,91)	CKSRYB332K50	C 702	(B,21,93)	CKSRYB103K50
C 432	(B,163,88)	CKSRYB332K50	C 703	(A,22,105)	CEJQ221M10
C 433	(A,158,94)	CKSRYB474K10	C 704	(B,12,96)	CKSRYB102K50
C 434	(A,158,85)	CKSRYB474K10	C 711	(A,23,83)	CEJQ221M10
C 435	(A,158,91)	CCSRCH470J50	C 712	(B,20,75)	CKSRYB472K50
C 436	(A,158,88)	CCSRCH470J50	C 713	(A,24,76)	CEJQ2R2M50
C 437	(A,151,91)	CCSRCH470J50	C 714	(B,12,82)	CKSRYB102K50
C 438	(A,151,88)	CCSRCH470J50	C 721	(A,38,68) 47 µF/16 V	CCH1533
C 439	(A,149,91)	CKSRYB474K10	C 722	(A,35,73)	CKSRYB104K16
C 440	(A,149,88)	CKSRYB474K10	C 723	(A,37,79)	CKSRYB104K16
C 441	(B,153,86)	CKSRYB105K10	C 724	(A,36,81)	CKSYB475K10
C 442	(B,151,92)	CKSRYB105K10	C 731	(A,53,18)	CEAL220M6R3
C 461	(B,18,60)	CKSRYB473K50	C 732	(B,55,17)	CKSRYB104K16
C 462	(B,20,69)	CKSRYB102K50	C 733	(A,42,27)	CKSRYB104K16
C 463	(A,22,69)	CEJQ101M10	C 734	(A,46,30)	CKSYB475K10

Circuit Symbol and No.		Part No.
C 735	(B,45,34)	CCSRCH101J50
C 736	(A,45,36) 100 µF/10 V	CCH1511
C 738	(B,53,34)	CCSRCH101J50
C 739	(A,53,36)	CEAL101M6R3
C 751	(A,58,92)	CEAL470M6R3
C 752	(A,48,89)	CKSRYB103K50
C 753	(A,32,98)	CKSRYB472K50
C 754	(A,48,99) 0.1 F/5.5 V	CCL1050
C 801	(B,106,12)	CKSRYB104K16
C 821	(B,31,16)	CKSRYB473K25
C 841	(A,22,47)	CKSRYB103K50
C 842	(A,27,57)	CEJQ470M25
C 843	(A,30,49)	CEAL101M10
C 844	(A,31,42)	CKSRYB104K16
C 845	(B,30,34)	CCSRCH331J50
C 846	(B,33,37)	CKSRYB103K50
C 847	(A,25,29)	CEJQ470M25
C 848	(A,18,30) 4.7 µF	CCG1111
C 849	(A,35,29)	CEJQ470M25
C 850	(B,25,61)	CKSRYB474K10
C 862	(A,70,11)	CKSRYB105K10
C 871	(B,150,14)	CKSRYB224K10
C 872	(B,150,25)	CKSRYB104K16
C 873	(A,150,22)	CEAL220M16
C 874	(B,148,28)	CKSRYB102K50
C 875	(A,141,28)	CCSRCH101J50
C 876	(A,141,38)	CCSRCH101J50
C 911	(B,65,140)	CKSRYB104K16
C 921	(A,79,122)	CKSRYB105K10
C 941	(A,83,115)	CKSRYB473K25
C 942	(A,75,115)	CKSRYB104K16
C 971	(B,143,88)	CKSRYB104K16

A

Unit Number : CWN1477(EW5 model)
Unit Name : Tuner Amp Unit

MISCELLANEOUS

IC 101	(B,43,109) IC	HA12241FP
IC 121	(A,67,27) IC	AK7732VT
IC 161	(A,46,52) IC	PCM1793DB
IC 171	(A,63,52) IC	PCM1793DB
IC 181	(A,80,52) IC	PCM1793DB
IC 201	(A,53,78) IC	NJM2114M
IC 202	(A,67,78) IC	NJM2114M
IC 203	(A,81,78) IC	NJM2114M
IC 251	(B,47,72) IC	NJM4558MD
IC 261	(B,107,73) IC	NJM4558MD
IC 281	(A,112,92) IC	PM9009A
IC 331	(A,98,134) IC	PAL007B
IC 401	(B,147,73) IC	NJM2885DL1-33
IC 431	(A,155,90) IC	NJM4558V
IC 491	(A,86,28) IC	TC7SU04FU
IC 492	(A,80,28) IC	TC7S04FU
IC 493	(A,84,31) IC	TC7SH08FUS1
IC 541	(A,27,116) IC	BA3121F
IC 561	(A,140,44) IC	NJM4558V
IC 562	(A,140,53) IC	NJM4558V
IC 601	(A,129,65) IC	PEG176A
IC 631	(A,132,45) IC	BR25L320F-W
IC 661	(A,115,42) IC	S-80835CNMC-B8U
IC 671	(A,96,15) IC	TC74VHCT08AFTS1
IC 672	(A,83,15) IC	TC74VHC08FTS1
IC 721	(A,37,76) IC	NJM2872F05
IC 731	(A,49,25) IC	NJM2885DL1-33
IC 841	(A,30,37) IC	NJM2360M
IC 871	(A,143,33) IC	BA6288FS
IC 941	(A,79,114) IC	TPD1018F
Q 101	(A,19,115) Transistor	UMF23N
Q 331	(A,107,125) Transistor	DTC124EU
Q 351	(A,147,121) Transistor	IMH23
Q 352	(A,138,121) Transistor	IMH23
Q 353	(A,130,121) Transistor	IMH23
Q 354	(A,145,112) Transistor	IMH23
Q 355	(A,139,112) Transistor	IMH23
Q 356	(A,133,112) Transistor	IMH23
Q 381	(B,25,104) Transistor	2SC3052-12
Q 382	(A,123,122) Transistor	UMD3N
Q 401	(A,153,101) Transistor	DTC143EU
Q 402	(A,158,97) Transistor	UMH1N
Q 403	(A,158,100) Transistor	UMH1N
Q 431	(B,160,92) Transistor	2SA1576
Q 432	(B,160,88) Transistor	2SA1576
Q 461	(B,18,65) Transistor	UMD3N
Q 462	(A,14,69) Transistor	2SD2396
Q 522	(B,111,28) Transistor	2SC3052-12
Q 523	(B,129,31) Transistor	UMD2N
Q 591	(A,60,106) Transistor	2SD1767
Q 592	(A,59,102) Transistor	UMD3N
Q 661	(B,119,43) Transistor	2SC3052-12
Q 701	(A,14,99) Transistor	2SD2396
Q 702	(B,19,99) Transistor	UMD3N
Q 711	(A,14,82) Transistor	2SD2396
Q 712	(B,23,80) Transistor	UMD3N
Q 751	(A,39,98) Transistor	2SD1760F5
Q 752	(A,32,100) Transistor	UMD3N
Q 821	(A,28,18) Transistor	2SD1767
Q 822	(A,30,14) Transistor	UMD3N
Q 823	(A,38,23) Transistor	UMH1N
Q 831	(A,72,7) Transistor	DTC114EU
Q 841	(A,19,55) Transistor	2SD1760F5
Q 842	(A,19,47) Transistor	UMD3N
Q 861	(A,66,9) Transistor	2SB710A
Q 862	(A,65,14) Transistor	DTC114EU
Q 871	(A,143,15) Transistor	2SD1760F5
Q 872	(B,146,14) Transistor	UMD3N
Q 911	(A,89,109) Transistor	UMX1N
Q 921	(A,81,120) Transistor	DTC114EU
Q 931	(B,66,125) Transistor	2SA1235A-12
D 281	(A,111,106) Diode	RB520S-30
D 282	(A,107,102) Diode	1SS400
D 283	(A,112,102) Diode	RB521S-30
D 284	(B,112,98) Diode	RB521S-30
D 381	(A,103,125) Diode	DAN202U
D 382	(A,12,90) Diode	HZS9L(A2)
D 383	(A,120,117) Diode	1SS133
D 401	(A,144,93) Diode	1SR154-400
D 402	(A,144,89) Diode	1SR154-400

Circuit Symbol and No.		Part No.
D 403	(A,144,86) Diode	1SR154-400
D 431	(B,150,88) Diode	UDZS5R6(B)
D 461	(A,18,62) Diode	HZS7L(C3)
D 521	(B,119,9) Diode	RSB6R8S
D 525	(B,124,29) Diode	HZU3R9(B1)
D 541	(B,37,132) Diode	UDZS6R8(B)
D 542	(B,39,125) Diode	UDZS6R8(B)
D 543	(B,35,132) Diode	UDZS6R8(B)
D 544	(B,43,129) Diode	UDZS6R8(B)
D 561	(B,147,40) Diode	UDZS3R9(B)
D 562	(A,146,68) Diode	RB706F-40
D 581	(A,8,114) Diode	DAN202U
D 582	(A,8,119) Diode	DAP202U
D 591	(A,65,105) Diode	HZS11L(B2)
D 631	(A,136,84) Diode	MA111
D 661	(A,119,42) Diode	MA111
D 701	(A,22,90) Diode	HZS9L(B2)
D 711	(A,18,76) Diode	HZS9L(B3)
D 712	(B,22,87) Diode	DAN202U
D 751	(A,33,88) Diode	HZS6L(B3)
D 752	(A,42,90) Diode	RB551V-30
D 801	(A,129,24) Diode Network	DA204U
D 802	(A,134,20) Diode Network	DA204U
D 803	(A,134,15) Diode Network	DA204U
D 804	(A,134,23) Diode Network	DA204U
D 805	(A,134,17) Diode Network	DA204U
D 806	(A,129,22) Diode Network	DA204U
D 807	(A,129,19) Diode Network	DA204U
D 821	(A,34,18) Diode	HZS11L(A2)
D 823	(A,40,18) Diode	HZS7L(B3)
D 831	(A,88,6) LED	NECWB205-5780
D 841	(A,25,49) Diode	HZS9L(C2)
D 842	(B,29,37) Diode	RB411D
D 871	(A,152,15) Diode	HZS7L(B2)
D 872	(A,145,23) Diode	1SS133
D 873	(A,141,23) Diode	1SS133
D 901	(A,53,128) Diode	MPG06G-6415G50
D 902	(A,49,126) Diode	MPG06G-6415G50
D 911	(A,90,117) Diode	HZS7L(C3)
D 912	(A,93,117) Diode	HZS7L(A1)
D 921	(A,86,117) Diode	MPG06G-6415G50
D 931	(B,57,125) Diode	DAN202U
D 941	(A,68,113) Diode	MPG06G-6415G50
D 942	(A,72,113) Diode	MPG06G-6415G50
D 971	(B,143,85) Diode Network	DA204U
D 972	(B,143,94) Diode	HZU7L(C2)
ZNR401	(A,156,141) Surge Protector	RCCA-201Q31UA-PI
L 101	(B,37,111) Inductor	LCTC3R3K2125
L 121	(B,57,24) Inductor	CTF1379
L 122	(B,61,16) Inductor	CTF1379
L 161	(A,54,44) Inductor	CTF1379
L 162	(A,53,50) Inductor	CTF1379
L 171	(A,72,44) Inductor	CTF1379
L 172	(A,70,50) Inductor	CTF1379
L 181	(A,88,44) Inductor	CTF1379
L 182	(A,87,50) Inductor	CTF1379
L 281	(A,89,88) Inductor	LCTAW2R2J2520
L 401	(B,162,144) Chip Coil	LCTAW4R7J2520
L 402	(A,150,113) Inductor	LAU1R0K
L 403	(A,146,99) Inductor	LAU1R0K

Circuit Symbol and No.		Part No.
L 404	(A,149,99) Inductor	LAU2R2K
L 471	(A,99,51) Ferri-Inductor	LAU100K
L 492	(B,76,24) Inductor	CTF1379
L 493	(B,91,27) Inductor	CTF1389
L 494	(A,89,32) Inductor	CTF1389
L 521	(B,130,33) Inductor	LCTC1R0K1608
L 541	(B,35,128) Inductor	CTF1334
L 542	(B,39,120) Inductor	CTF1334
L 543	(A,41,119) Inductor	LCTAW2R2J2520
L 601	(A,137,92) Ferri-Inductor	LAU100K
L 671	(B,96,17) Inductor	LCTC4R7K1608
L 672	(B,83,17) Inductor	LCTC4R7K1608
L 731	(B,46,28) Chip Coil	LCTAW1R0J2520
L 732	(B,50,28) Chip Coil	LCTAW1R0J2520
L 841	(A,21,39) Inductor	CTF1660
L 842	(A,18,25) Inductor	LCTAW2R2J3225
L 931	(B,59,130) Inductor	LCTAW2R2J2520
X 491	(A,82,22) Crystal Resonator 16.934 MHz	CSS1620
X 601	(A,129,79) Crystal Resonator 15.000 MHz	CSS1653
S 651	(A,10,65) Switch(MODE)	CSH1051
VR281	(A,103,98) Semi-fixed 15 kΩ(B)	CCP1397
VR521	(A,145,54) Semi-fixed 10 kΩ(B)	CCP1448
⚠FU351	(A,150,128) Fuse 3 A	CEK1286
MIC521	(A,148,45) Microphone	CPM1068
Y 401	(A,165,146) FM/AM Tuner Unit	CWE1801
BZ601	(A,56,9) Buzzer	CPV1062

RESISTORS

R 101	(B,28,133)	RS1/16S150J
R 102	(B,26,133)	RS1/16S470J
R 103	(B,30,133)	RS1/16S101J
R 104	(B,24,133)	RS1/16S101J
R 105	(A,17,130)	RS1/16S181J
R 106	(A,17,122)	RS1/16S181J
R 107	(A,17,123)	RS1/16S223J
R 108	(A,17,129)	RS1/16S223J
R 109	(A,17,125)	RS1/16S102J
R 110	(A,29,120)	RS1/16S222J
R 111	(A,17,127)	RS1/16S102J
R 112	(B,35,111)	RS1/16S102J
R 113	(A,21,113)	RS1/16S332J
R 114	(A,21,115)	RS1/16S562J
R 115	(B,46,114)	RS1/16S472J
R 116	(B,48,114)	RS1/16S472J
R 121	(A,75,20)	RS1/16S101J
R 122	(A,77,20)	RS1/16S101J
R 123	(A,78,20)	RS1/16S101J
R 124	(A,69,17)	RS1/16S681J
R 125	(A,68,17)	RS1/16S681J
R 126	(A,61,33)	RS1/16S104J
R 127	(A,61,35)	RS1/16S104J
R 128	(A,59,26)	RS1/16S153J
R 161	(A,48,44)	RAB4C101J
R 162	(A,45,44)	RS1/16S473J
R 163	(A,51,44)	RS1/16S101J
R 164	(A,42,44)	RAB4C101J
R 165	(A,52,44)	RS1/16S473J
R 171	(A,65,44)	RAB4C101J
R 172	(A,62,44)	RS1/16S473J

Circuit Symbol and No.		Part No.
R 173	(A,68,44)	RS1/16S101J
R 174	(A,59,44)	RAB4C101J
R 175	(A,70,44)	RS1/16S473J
R 181	(A,82,44)	RAB4C101J
R 182	(A,79,44)	RS1/16S473J
R 183	(A,85,44)	RS1/16S101J
R 184	(A,76,44)	RAB4C101J
R 185	(A,86,44)	RS1/16S473J
R 201	(A,51,69)	RN1/16SE1502D
R 202	(A,57,69)	RN1/16SE1502D
R 203	(A,49,69)	RN1/16SE1502D
R 204	(A,56,69)	RN1/16SE1502D
R 205	(A,52,71)	RN1/16SE1502D
R 206	(A,59,71)	RN1/16SE1502D
R 207	(A,48,69)	RN1/16SE1502D
R 208	(A,54,69)	RN1/16SE1502D
R 209	(A,51,73)	RN1/16SE6800D
R 210	(A,57,73)	RN1/16SE6800D
R 211	(A,49,73)	RN1/16SE6800D
R 212	(A,56,73)	RN1/16SE6800D
R 213	(A,65,69)	RN1/16SE1502D
R 214	(A,71,69)	RN1/16SE1502D
R 215	(A,63,69)	RN1/16SE1502D
R 216	(A,70,69)	RN1/16SE1502D
R 217	(A,66,71)	RN1/16SE1502D
R 218	(A,73,71)	RN1/16SE1502D
R 219	(A,62,69)	RN1/16SE1502D
R 220	(A,68,69)	RN1/16SE1502D
R 221	(A,65,73)	RN1/16SE6800D
R 222	(A,71,73)	RN1/16SE6800D
R 223	(A,63,73)	RN1/16SE6800D
R 224	(A,70,73)	RN1/16SE6800D
R 225	(A,79,69)	RN1/16SE1502D
R 226	(A,85,69)	RN1/16SE1502D
R 227	(A,77,69)	RN1/16SE1502D
R 228	(A,84,69)	RN1/16SE1502D
R 229	(A,80,71)	RN1/16SE1502D
R 230	(A,87,71)	RN1/16SE1502D
R 231	(A,76,69)	RN1/16SE1502D
R 232	(A,82,69)	RN1/16SE1502D
R 233	(A,79,73)	RN1/16SE6800D
R 234	(A,85,73)	RN1/16SE6800D
R 235	(A,77,73)	RN1/16SE6800D
R 236	(A,84,73)	RN1/16SE6800D
R 251	(A,45,84)	RS1/16S332J
R 252	(A,45,81)	RS1/16S563J
R 253	(A,43,84)	RS1/16S682J
R 254	(A,43,81)	RS1/16S473J
R 261	(B,113,74)	RS1/16S223J
R 262	(B,100,75)	RS1/16S223J
R 263	(B,115,71)	RS1/16S153J
R 264	(B,100,71)	RS1/16S153J
R 267	(B,113,67)	RS1/16S101J
R 268	(B,100,67)	RS1/16S101J
R 281	(A,123,87)	RS1/16S390J
R 282	(A,123,88)	RS1/16S390J
R 283	(A,127,102)	RS1/16S390J
R 284	(A,126,102)	RS1/16S390J
R 285	(A,124,102)	RS1/16S390J
R 286	(A,123,102)	RS1/16S390J

Circuit Symbol and No.		Part No.
R 287	(A,123,93)	RS1/16S0R0J
R 288	(A,123,94)	RS1/16S0R0J
R 289	(A,123,96)	RS1/16S0R0J
R 290	(A,123,98)	RS1/16S0R0J
R 291	(A,105,99)	RS1/16S103J
R 292	(A,118,102)	RAB4C101J
R 331	(A,94,125)	RS1/16S103J
R 332	(A,113,125)	RS1/16S331J
R 333	(A,110,125)	RS1/16S103J
R 334	(A,111,125)	RS1/16S103J
R 351	(B,148,118)	RS1/16S390J
R 352	(B,145,118)	RS1/16S390J
R 353	(A,148,123)	RS1/16S223J
R 354	(A,145,118)	RS1/16S223J
R 359	(B,140,118)	RS1/16S390J
R 360	(B,137,118)	RS1/16S390J
R 361	(A,140,123)	RS1/16S223J
R 362	(A,137,118)	RS1/16S223J
R 367	(B,135,118)	RS1/16S390J
R 368	(B,132,118)	RS1/16S390J
R 369	(A,131,123)	RS1/16S223J
R 370	(A,128,118)	RS1/16S223J
R 381	(A,119,122)	RS1/16S473J
R 382	(B,29,104)	RS1/16S103J
R 383	(B,31,104)	RS1/16S473J
R 384	(A,120,122)	RS1/16S221J
R 401	(A,151,85)	RS1/16S471J
R 402	(B,168,136)	RS1/16S681J
R 403	(B,168,134)	RS1/16S681J
R 404	(B,168,131)	RS1/16S681J
R 405	(B,168,128)	RS1/16S681J
R 406	(B,168,126)	RS1/16S681J
R 407	(B,168,124)	RS1/16S681J
R 408	(B,162,109)	RS1/16S681J
R 409	(A,153,99)	RS1/16S103J
R 410	(A,153,97)	RAB4C223J
R 431	(B,160,94)	RS1/16S182J
R 432	(B,160,85)	RS1/16S182J
R 433	(B,157,94)	RS1/16S821J
R 434	(B,157,86)	RS1/16S821J
R 437	(A,159,94)	RS1/16S103J
R 438	(A,159,85)	RS1/16S103J
R 439	(A,159,91)	RS1/16S103J
R 440	(A,159,88)	RS1/16S103J
R 441	(A,152,91)	RS1/16S103J
R 442	(A,152,88)	RS1/16S103J
R 443	(A,151,93)	RS1/16S103J
R 444	(A,151,86)	RS1/16S103J
R 445	(B,147,86)	RS1/16S681J
R 461	(B,17,69)	RS1/4SA561J
R 471	(B,110,49)	RS1/16S682J
R 472	(B,108,49)	RS1/16S682J
R 473	(B,106,49)	RS1/16S682J
R 474	(B,104,49)	RS1/16S682J
R 475	(B,104,46)	RS1/16S221J
R 476	(B,104,44)	RS1/16S221J
R 477	(B,106,42)	RS1/16S221J
R 478	(B,106,40)	RS1/16S221J
R 479	(B,106,38)	RS1/16S221J
R 480	(B,106,36)	RS1/16S681J

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
R 481	(B,106,34)	RS1/16S473J	R 633	(A,131,52)	RAB4C681J
R 482	(B,106,32)	RS1/16S473J	R 634	(B,132,49)	RS1/16S104J
R 483	(B,117,47)	RS1/16S102J	R 635	(A,129,39)	RS1/16S104J
R 491	(A,84,26)	RN1/16SE1003D	R 636	(A,131,39)	RS1/16S104J
R 492	(A,81,26)	RS1/16S152J	R 642	(B,125,47)	RS1/16S104J
R 493	(A,79,31)	RS1/16S101J	R 651	(B,12,68)	RS1/16S0R0J
R 494	(A,84,33)	RS1/16S103J	R 653	(B,12,62)	RS1/16S473J
R 495	(A,94,32)	RS1/16S472J	R 661	(A,117,43)	RS1/16S183J
R 497	(B,77,29)	RS1/16S0R0J	R 663	(B,119,38)	RS1/16S473J
R 522	(A,118,24)	RS1/16S0R0J	R 664	(A,119,49)	RS1/16S102J
R 523	(B,122,28)	RS1/16S104J	R 665	(B,119,40)	RS1/16S222J
R 524	(B,121,30)	RS1/16S222J	R 671	(A,91,17)	RS1/16S681J
R 525	(B,115,31)	RS1/16S683J	R 672	(A,90,14)	RS1/16S681J
R 526	(B,115,28)	RS1/16S153J	R 673	(A,100,23)	RAB4C681J
R 527	(B,112,31)	RS1/16S682J	R 674	(A,84,37)	RAB4C272J
R 528	(B,114,25)	RS1/16S152J	R 675	(B,85,37)	RAB4C472J
R 529	(B,127,33)	RS1/16S561J	R 676	(A,90,13)	RS1/16S473J
R 531	(A,143,65)	RS1/16S683J	R 677	(A,100,20)	RS1/16S473J
R 532	(B,127,13)	RS1/16S0R0J	R 701	(B,17,103)	RS1/16S471J
R 541	(B,35,127)	RS1/16S101J	R 702	(B,19,103)	RS1/16S561J
R 542	(B,42,119)	RS1/16S101J	R 705	(B,17,93)	RS1/16S473J
R 543	(B,37,124)	RS1/16S223J	R 712	(B,19,82)	RS1/16S471J
R 544	(B,42,115)	RS1/16S223J	R 713	(B,17,85)	RS1/16S471J
R 545	(B,34,124)	RS1/16S102J	R 751	(A,32,103)	RS1/16S333J
R 546	(B,42,114)	RS1/16S102J	R 752	(A,32,105)	RS1/16S681J
R 561	(B,144,51)	RS1/16S103J	R 753	(A,31,103)	RS1/16S821J
R 562	(B,144,56)	RS1/16S153J	R 801	(B,125,25)	RS1/16S222J
R 563	(B,144,48)	RS1/16S153J	R 802	(B,127,17)	RS1/16S222J
R 564	(B,140,59)	RS1/16S103J	R 803	(A,130,14)	RS1/16S222J
R 565	(B,140,48)	RS1/16S223J	R 804	(B,125,23)	RS1/16S222J
R 566	(B,144,49)	RS1/16S102J	R 805	(A,129,15)	RS1/16S222J
R 567	(B,140,56)	RS1/16S563J	R 806	(B,125,21)	RS1/16S222J
R 568	(B,144,54)	RS1/16S101J	R 807	(A,128,17)	RS1/16S222J
R 569	(B,140,45)	RS1/16S152J	R 808	(B,137,51)	RS1/16S104J
R 570	(B,138,45)	RS1/16S152J	R 809	(B,135,23)	RS1/16S104J
R 571	(B,143,46)	RS1/16S104J	R 821	(A,26,13)	RS1/16S221J
R 572	(B,143,44)	RS1/16S222J	R 822	(A,26,15)	RS1/16S271J
R 573	(A,144,68)	RS1/16S104J	R 823	(A,42,15)	RS1/16S473J
R 574	(A,149,68)	RS1/16S104J	R 831	(A,66,6)	RS1/16S181J
R 581	(A,6,115)	RS1/16S103J	R 841	(A,14,52)	RS1/4SA471J
R 582	(A,10,115)	RS1/16S104J	R 842	(A,30,44)	RS1/16S1R0J
R 583	(A,10,118)	RS1/16S102J	R 843	(A,29,42)	RS1/16S391J
R 584	(A,6,118)	RS1/16S102J	R 844	(A,37,37)	RD1/4PU332J
R 591	(A,73,108)	RS1/16S1R0J	R 845	(A,35,37)	RD1/4PU332J
R 592	(A,56,104)	RS1/16S391J	R 846	(A,34,42)	RS1/16S121J
R 601	(B,134,78)	RS1/16S0R0J	R 861	(A,64,12)	RS1/16S103J
R 602	(B,126,73)	RS1/16S473J	R 862	(A,67,12)	RS1/16S222J
R 603	(A,114,74)	RS1/16S473J	R 863	(A,73,11)	RS1/16S473J
R 606	(B,65,129)	RS1/16S473J	R 871	(B,140,14)	RS1/16S471J
R 607	(B,136,58)	RS1/16S104J	R 872	(B,142,14)	RS1/16S471J
R 608	(B,136,60)	RS1/16S104J	R 873	(A,144,39)	RS1/16S102J
R 609	(B,136,56)	RS1/16S104J	R 874	(A,144,38)	RS1/16S102J
R 610	(B,137,62)	RS1/16S473J	R 875	(B,146,31)	RS1/16S102J
R 611	(B,137,69)	RS1/16S681J	R 876	(B,146,33)	RS1/16S102J
R 612	(B,137,67)	RS1/16S681J	R 877	(B,147,36)	RS1/16S104J
R 613	(B,137,65)	RS1/16S681J	R 878	(B,145,36)	RS1/16S104J
R 614	(B,127,27)	RS1/16S473J	R 911	(A,86,111)	RS1/16S473J
R 615	(A,64,17)	RS1/16S102J	R 912	(A,89,111)	RS1/16S104J
R 616	(B,132,93)	RS1/16S473J	R 913	(B,67,140)	RS1/16S472J
R 631	(B,132,45)	RS1/16S104J	R 914	(A,92,109)	RS1/16S473J

Circuit Symbol and No.		Part No.
R 915	(A,92,111)	RS1/16S103J
R 921	(A,83,122)	RS1/16S103J
R 931	(B,57,128)	RS1/16S153J
R 932	(B,60,125)	RS1/16S472J
R 933	(B,62,125)	RS1/16S472J
R 934	(B,65,127)	RS1/16S102J
R 941	(A,75,110)	RS1/16S103J
R 971	(B,146,91)	RS1/16S102J
R 972	(B,143,90)	RS1/16S153J
R 973	(B,143,92)	RS1/16S102J

CAPACITORS

C 101	(B,20,133)	CKSRYB104K16
C 105	(B,46,104)	CKSRYB104K16
C 121	(B,73,25)	CKSRYB104K16
C 122	(B,71,20)	CKSRYB104K16
C 123	(B,66,32)	CKSRYB104K16
C 124	(B,67,20)	CKSRYB104K16
C 125	(B,64,32)	CKSRYB104K16
C 126	(A,57,22)	CKSYB106K6R3
C 127	(B,59,27)	CKSYB106K6R3
C 128	(B,59,30)	CKSYB106K6R3
C 129	(A,59,23)	CKSRYB104K16
C 130	(A,57,27)	CKSRYB104K16
C 131	(A,57,25)	CKSRYB682K50
C 132	(A,57,30)	CKSRYB104K16
C 134	(B,54,25)	CKSRYB103K50
C 135	(B,62,19)	CKSQYB225K10
C 136	(B,64,18)	CKSRYB103K50
C 137	(B,54,23)	CKSRYB473K25
C 138	(B,60,18)	CKSRYB473K25
C 139	(B,74,20)	CCSRCH470J50
C 140	(B,76,20)	CCSRCH470J50
C 141	(B,78,20)	CCSRCH470J50
C 142	(B,71,35)	CCSRCH470J50
C 143	(B,61,42)	CCSRCH470J50
C 144	(B,46,42)	CCSRCH470J50
C 145	(B,63,42)	CCSRCH470J50
C 146	(B,62,37)	CCSRCH470J50
C 147	(B,63,53)	CKSRYB102K50
C 161	(A,56,44)	CCSRCH102J50
C 162	(A,54,46)	CKSYB106K6R3
C 163	(A,53,48)	CCSRCH102J50
C 164	(A,56,50)	CCSRCH102J50
C 165	(A,54,52)	CKSYB106K6R3
C 166	(A,53,54)	CCSRCH102J50
C 167	(A,53,56)	CKSRYB105K6R3
C 171	(A,73,44)	CCSRCH102J50
C 172	(A,71,46)	CKSYB106K6R3
C 173	(A,70,48)	CCSRCH102J50
C 174	(A,73,50)	CCSRCH102J50
C 175	(A,71,52)	CKSYB106K6R3
C 176	(A,70,54)	CCSRCH102J50
C 177	(A,70,56)	CKSRYB105K6R3
C 181	(A,90,44)	CCSRCH102J50
C 182	(A,88,46)	CKSYB106K6R3
C 183	(A,87,48)	CCSRCH102J50
C 184	(A,90,50)	CCSRCH102J50
C 185	(A,88,52)	CKSYB106K6R3

Circuit Symbol and No.			Part No.
C 186	(A,87,54)		CCSRCH102J50
C 187	(A,87,56)		CKSRYB105K6R3
C 201	(A,47,60)	10 µF/16 V	CCH1532
C 202	(A,54,60)	10 µF/16 V	CCH1532
C 203	(A,47,65)	10 µF/16 V	CCH1532
C 204	(A,54,65)	10 µF/16 V	CCH1532
C 205	(A,52,73)		CCSRCH221J50
C 206	(A,59,73)		CCSRCH221J50
C 207	(A,48,73)		CCSRCH221J50
C 208	(A,54,73)		CCSRCH221J50
C 209	(A,50,71)		CCSRCH821J50
C 210	(A,56,71)		CCSRCH821J50
C 211	(A,62,60)	10 µF/16 V	CCH1532
C 212	(A,69,60)	10 µF/16 V	CCH1532
C 213	(A,62,65)	10 µF/16 V	CCH1532
C 214	(A,69,65)	10 µF/16 V	CCH1532
C 215	(A,66,73)		CCSRCH221J50
C 216	(A,73,73)		CCSRCH221J50
C 217	(A,62,73)		CCSRCH221J50
C 218	(A,68,73)		CCSRCH221J50
C 219	(A,64,71)		CCSRCH821J50
C 220	(A,70,71)		CCSRCH821J50
C 221	(A,77,60)	10 µF/16 V	CCH1532
C 222	(A,84,60)	10 µF/16 V	CCH1532
C 223	(A,77,65)	10 µF/16 V	CCH1532
C 224	(A,84,65)	10 µF/16 V	CCH1532
C 225	(A,80,73)		CCSRCH221J50
C 226	(A,87,73)		CCSRCH221J50
C 227	(A,76,73)		CCSRCH221J50
C 228	(A,82,73)		CCSRCH221J50
C 229	(A,78,71)		CCSRCH821J50
C 230	(A,84,71)		CCSRCH821J50
C 231	(B,52,78)		CKSRYB104K16
C 232	(B,66,78)		CKSRYB104K16
C 233	(B,80,78)		CKSRYB104K16
C 251	(A,44,77)	10 µF/16 V	CCH1532
C 252	(A,41,82)		CKSYB106K6R3
C 253	(B,47,68)		CKSRYB104K16
C 261	(B,113,71)		CCSRCH220J50
C 262	(B,98,71)		CCSRCH220J50
C 263	(B,107,63)		CKSRYB332K50
C 264	(B,101,63)		CKSRYB332K50
C 265	(A,109,62)		CEAL2R2M50
C 266	(A,103,62)		CEAL2R2M50
C 267	(B,110,67)		CKSQYB225K10
C 268	(B,103,67)		CKSQYB225K10
C 269	(B,107,69)		CKSRYB104K25
C 281	(A,94,84)		CEJQ2R2M50
C 282	(A,99,84)		CEJQ2R2M50
C 283	(A,92,78)		CEJQ2R2M50
C 284	(A,97,78)		CEJQ2R2M50
C 285	(A,103,92)		CKSQYB225K10
C 286	(A,103,90)		CKSQYB225K10
C 287	(B,110,37)		CKSQYB225K10
C 288	(B,111,90)		CKSRYB104K50
C 289	(B,111,88)		CKSRYB104K50
C 290	(A,110,78)		CEAL100M16
C 291	(A,104,78)		CEAL100M16
C 292	(A,50,83)	10 µF/16 V	CCH1563
C 293	(A,57,83)	10 µF/16 V	CCH1563

Circuit Symbol and No.		Part No.
C 294	(A,64,84) 10 µF/16 V	CCH1563
C 295	(A,70,84) 10 µF/16 V	CCH1563
C 296	(A,78,84) 10 µF/16 V	CCH1563
C 297	(A,84,84) 10 µF/16 V	CCH1563
C 298	(A,95,99) 56 µF/10 V	CCH1701
C 299	(A,112,104)	CKSQYB474K16
C 300	(A,95,91) 56 µF/10 V	CCH1701
C 301	(A,109,102)	CKSQYB475K10
C 302	(A,112,101)	CKSQYB105K16
C 303	(B,107,95)	CKSRYB104K16
C 331	(A,109,117)	CFTNA274J50
C 332	(A,97,117)	CFTNA274J50
C 333	(A,115,117)	CFTNA274J50
C 334	(A,103,117)	CFTNA274J50
C 335	(A,71,127) 3 300 µF/16 V	CCH1547
C 336	(A,129,128) 10 µF/16 V	CCH1532
C 337	(A,100,125)	CKSQYB225K10
C 338	(A,98,125)	CKSQYB225K10
C 339	(B,105,135)	CKSRYB104K16
C 340	(A,123,127)	CEHAR330M10
C 351	(A,138,100) 10 µF/16 V	CCH1532
C 352	(A,132,100) 10 µF/16 V	CCH1532
C 355	(A,138,106) 10 µF/16 V	CCH1532
C 356	(A,132,106) 10 µF/16 V	CCH1532
C 359	(A,125,109) 10 µF/16 V	CCH1532
C 360	(A,118,109) 10 µF/16 V	CCH1532
C 381	(A,125,115)	CEJQ220M16
C 401	(B,168,138)	CKSRYB103K50
C 402	(A,156,113)	CEAL101M10
C 403	(B,154,110)	CKSRYB104K16
C 404	(B,152,109)	CKSQYB475K10
C 405	(B,157,82)	CKSRYB103K50
C 406	(A,157,80)	CEJQ101M10
C 407	(A,150,80)	CEJQ220M25
C 408	(B,150,78)	CKSRYB103K50
C 409	(B,143,68)	CKSRYB103K50
C 410	(B,151,83)	CKSYB475K16
C 412	(B,162,105)	CKSYB475K16
C 413	(B,162,101)	CKSRYB103K50
C 414	(B,162,111)	CKSRYB103K50
C 415	(A,150,106)	CEJQ470M10
C 416	(A,157,106)	CEJQ470M10
C 417	(B,143,103)	CKSRYB102K50
C 431	(B,163,91)	CKSRYB222K50
C 432	(B,163,88)	CKSRYB222K50
C 433	(A,158,94)	CKSRYB474K10
C 434	(A,158,85)	CKSRYB474K10
C 435	(A,158,91)	CCSRCH470J50
C 436	(A,158,88)	CCSRCH470J50
C 437	(A,151,91)	CCSRCH470J50
C 438	(A,151,88)	CCSRCH470J50
C 439	(A,149,91)	CKSRYB474K10
C 440	(A,149,88)	CKSRYB474K10
C 441	(B,153,86)	CKSRYB105K10
C 442	(B,151,92)	CKSRYB105K10
C 461	(B,18,60)	CKSRYB473K50
C 462	(B,20,69)	CKSRYB102K50
C 463	(A,22,69)	CEJQ101M10
C 473	(A,98,57)	CEJQ101M10
C 491	(B,80,32)	CKSQYB225K10
C 492	(B,78,32)	CKSRYB103K50
C 494	(B,80,24)	CKSQYB225K10
C 495	(B,78,24)	CKSRYB103K50
C 496	(A,84,25)	CCSRCH100D50
C 497	(A,80,25)	CCSRCH100D50
C 498	(A,81,32)	CCSRCH220J50
C 499	(A,81,31)	CCSRCH470J50
C 502	(B,88,26)	CKSRYB103K50
C 503	(B,88,28)	CKSRYB103K50
C 504	(B,88,30)	CKSQYB225K10
C 505	(A,88,34)	CCSRCH151J50
C 506	(A,89,34)	CCSRCH390J50
C 521	(B,121,10)	CKSRYB221K50
C 529	(B,120,28)	CCSRCH681J50
C 530	(B,118,28)	CKSQYB225K10
C 531	(A,135,37)	CEJQ101M6R3
C 532	(B,133,31)	CKSRYB103K50
C 541	(B,39,134)	CKSRYB221K50
C 542	(B,44,124)	CKSRYB221K50
C 543	(B,35,124)	CKSRYB471K50
C 544	(B,42,117)	CKSRYB471K50
C 545	(B,31,118)	CKSQYB225K10
C 546	(B,38,115)	CKSQYB225K10
C 547	(B,43,134)	CKSRYB104K16
C 548	(B,47,117)	CKSRYB471K50
C 549	(A,34,118)	CEAL220M16
C 550	(B,25,118)	CKSRYB105K10
C 551	(B,25,116)	CKSRYB104K16
C 561	(B,140,50)	CKSRYB105K10
C 562	(A,145,59)	CEALNP4R7M16
C 563	(A,151,55)	CEALNP4R7M16
C 564	(A,137,52)	CKSRYB105K10
C 565	(B,143,40)	CKSRYB474K10
C 566	(B,141,40)	CKSRYB104K16
C 567	(B,140,54)	CCSRCH101J50
C 568	(B,139,40)	CKSRYB105K10
C 569	(A,151,60)	CEAL100M16
C 570	(A,137,44)	CKSRYB105K10
C 571	(B,145,40)	CKSRYB105K6R3
C 572	(B,146,45)	CKSRYB105K6R3
C 591	(A,69,104)	CEJQ100M16
C 592	(A,70,108)	CKSRYB103K50
C 593	(A,62,102)	CKSRYB103K50
C 602	(B,138,94)	CKSRYB103K50
C 603	(A,136,88)	CEJQ4R7M35
C 604	(B,126,82)	CCSRCH180J50
C 605	(B,131,82)	CCSRCH180J50
C 606	(B,137,64)	CCSRCH470J50
C 631	(B,132,48)	CKSRYB104K16
C 632	(A,139,79)	CEJQ101M16
C 661	(A,118,45)	CKSRYB105K10
C 662	(B,119,36)	CKSRYB104K16
C 671	(B,96,15)	CKSRYB104K16
C 672	(B,83,16)	CKSRYB104K16
C 701	(A,21,95)	CEJQ101M16
C 702	(B,21,93)	CKSRYB103K50
C 703	(A,22,105)	CEJQ221M10
C 704	(B,12,96)	CKSRYB102K50
C 711	(A,23,83)	CEJQ221M10
C 712	(B,20,75)	CKSRYB472K50

Circuit Symbol and No.			Part No.
C 713	(A,24,76)		CEJQ2R2M50
C 714	(B,12,82)		CKSRYB102K50
C 721	(A,38,68)	47 µF/16 V	CCH1533
C 722	(A,35,73)		CKSRYB104K16
C 723	(A,37,79)		CKSRYB104K16
C 724	(A,36,81)		CKSYB475K10
C 731	(A,53,18)		CEAL220M6R3
C 732	(B,55,17)		CKSRYB104K16
C 733	(A,42,27)		CKSRYB104K16
C 734	(A,46,30)		CKSYB475K10
C 735	(B,45,34)		CCSRCH101J50
C 736	(A,45,36)	100 µF/10 V	CCH1511
C 738	(B,53,34)		CCSRCH101J50
C 739	(A,53,36)		CEAL101M6R3
C 751	(A,58,92)		CEAL470M6R3
C 752	(A,48,89)		CKSRYB103K50
C 753	(A,32,98)		CKSRYB472K50
C 754	(A,48,99)	0.1 F/5.5 V	CCL1050
C 821	(B,31,16)		CKSRYB473K25
C 841	(A,22,47)		CKSRYB103K50
C 842	(A,27,57)		CEJQ470M25
C 843	(A,30,49)		CEAL101M10
C 844	(A,31,42)		CKSRYB104K16
C 845	(B,30,34)		CCSRCH331J50
C 846	(B,33,37)		CKSRYB103K50
C 847	(A,25,29)		CEJQ470M25
C 848	(A,18,30)	4.7 µF	CCG1111
C 849	(A,35,29)		CEJQ470M25
C 850	(B,25,61)		CKSRYB474K10
C 862	(A,70,11)		CKSRYB105K10
C 871	(B,150,14)		CKSRYB224K10
C 872	(B,150,25)		CKSRYB104K16
C 873	(A,150,22)		CEAL220M16
C 874	(B,148,28)		CKSRYB102K50
C 875	(A,141,28)		CCSRCH101J50
C 876	(A,141,38)		CCSRCH101J50
C 911	(B,65,140)		CKSRYB104K16
C 921	(A,79,122)		CKSRYB105K10
C 941	(A,83,115)		CKSRYB473K25
C 942	(A,75,115)		CKSRYB104K16
C 971	(B,143,88)		CKSRYB104K16

B

Unit Number : CWS1389
Unit Name : Switch Unit

S 1	Switch(CLOSE)	CSN1051
S 2	Spring Switch(OPEN)	CSN1052

C

Unit Number :
Unit Name : Keyboard Unit

MISCELLANEOUS

IC 1902	(A,38,38)	IC	GP1UX51RK
IC 1903	(B,59,24)	IC	PEG179A
IC 1904	(A,50,19)	IC	S-818A33AUC-BGN
IC 1905	(A,107,20)	IC	PD8160A
Q 1831	(A,22,37)	Transistor(UC)	UMD22N
Q 1832	(A,28,33)	Transistor(UC)	UMD22N
Q 1833	(A,131,33)	Transistor	DTC114EU
Q 1861	(A,71,23)	Transistor	2SC4617
Q 1862	(A,92,21)	Transistor	2SD1664
D 1801	(B,127,12)	Diode	DAN202U
D 1802	(B,133,13)	Diode	DAP202U
D 1803	(B,30,12)	Diode	RSB6R8S
D 1804	(B,30,8)	Diode	RSB6R8S
D 1831	(A,33,21)	LED(UC)	SML412BC5T(NP)
D 1832	(A,21,34)	LED(UC)	SML412BC5T(NP)
D 1833	(A,136,33)	LED	SML-310LT(MN)
D 1834	(A,18,9)	LED(UC)	SML412BC5T(NP)
D 1835	(A,6,21)	LED(UC)	SML412BC5T(NP)
D 1836	(A,162,21)	LED(UC)	SML412BC5T(NP)
D 1837	(A,135,21)	LED(UC)	SML412BC5T(NP)
D 1838	(A,150,33)	LED(UC)	SML412BC5T(NP)
D 1839	(A,147,9)	LED(UC)	SML412BC5T(NP)
D 1842	(A,159,38)	LED(UC)	SML412BC5T(NP)
D 1843	(A,18,34)	LED	NECWB205-5780
D 1844	(A,21,9)	LED	NECWB205-5780
D 1845	(A,8,21)	LED	NECWB205-5780
D 1846	(A,32,21)	LED	NECWB205-5780
D 1847	(A,150,9)	LED	NECWB205-5780
D 1848	(A,147,33)	LED	NECWB205-5780
D 1849	(A,136,21)	LED	NECWB205-5780
D 1850	(A,160,21)	LED	NECWB205-5780
D 1851	(A,157,38)	LED	NECWB205-5780
D 1901	(B,41,26)	Diode	1SS355
L 1802	(B,38,10)	Inductor(UC, ES)	CTF1379
L 1803	(B,43,9)	Inductor	CTF1379
L 1804	(B,45,8)	Inductor	CTF1379
L 1861	(A,101,29)	Inductor	CTF1617
L 1902	(A,57,25)	Inductor	CTF1617
TH1861	(A,71,29)	Thermistor	CCX1037
X 1901	(B,47,23)	Ceramic Resonator 16.000 MHz	CSS1616
S 1801	(A,136,10)	Push Switch	CSG1155
S 1811	(A,148,21)	Switch(MULTI-CONTROL)	CSX1065
S 1831	(A,20,21)	Encoder(VOLUME)	CSD1104
S 1832	(A,162,37)	Push Switch	CSG1155
S 1833	(A,6,33)	Push Switch	CSG1155
S 1834	(A,162,33)	Push Switch	CSG1155
S 1835	(A,6,10)	Push Switch	CSG1155
S 1836	(A,162,10)	Push Switch	CSG1155
VR1861	(B,95,21)	Semi-fixed 10 kΩ(B)	CCP1229
	OEL Unit		MXS8232

RESISTORS

R 1802	(A,128,27)	RS1/16S222J
R 1803	(A,130,27)	RS1/16S222J
R 1804	(A,135,14)	RS1/16S104J
R 1805	(A,126,18)	RS1/16S103J
R 1812	(B,158,27)	RS1/16S473J
R 1813	(B,138,10)	RS1/16S473J
R 1814	(B,136,10)	RS1/16S822J
R 1815	(B,158,25)	RS1/16S102J
R 1816	(B,134,8)	RS1/16S332J
R 1817	(B,123,12)	RS1/16S102J
R 1818	(B,123,10)	RS1/16S473J
R 1819	(A,126,11)	RS1/16S103J

Circuit Symbol and No.		Part No.
R 1820	(B,133,8)	RS1/16S222J
R 1831	(B,30,32) (UC)	RS1/16S241J
R 1832	(A,7,26) (UC)	RS1/16S241J
R 1833	(A,131,29)	RS1/16S181J
R 1834	(A,132,21) (UC)	RS1/16S101J
R 1835	(B,151,8) (UC)	RS1/16S561J
R 1837	(B,158,13) (UC)	RS1/16S392J
R 1838	(B,158,12) (UC)	RS1/16S272J
R 1839	(A,23,7)	RS1/16S271J
R 1840	(B,32,16)	RS1/16S271J
R 1841	(B,153,27)	RS1/16S271J
R 1842	(A,162,17)	RS1/16S271J
R 1843	(B,158,39)	RS1/16S332J
R 1844	(B,158,37)	RS1/16S562J
R 1845	(A,30,32) (EW5, ES)	RS1/16S0R0J
R 1846	(A,132,23) (UC)	RS1/16S820J
R 1861	(A,77,21)	RS1/16S3902D
R 1862	(A,71,25)	RS1/16S1802D
R 1863	(A,71,27)	RS1/16S6802D
R 1864	(A,91,16)	RS1/16S392J
R 1865	(A,66,33)	RAB4C101J
R 1866	(A,87,20)	RS1/16S152J
R 1902	(B,34,28)	RS1/16S101J
R 1903	(B,36,29)	RS1/16S103J
R 1904	(B,125,10)	RS1/16S103J
R 1905	(B,39,32)	RS1/16S2R2J
R 1907	(B,48,26)	RS1/16S473J
R 1908	(B,47,28)	RS1/16S102J
R 1909	(B,47,30)	RS1/16S102J
R 1910	(B,41,21)	RS1/16S154J
R 1911	(B,48,17)	RS1/16S104J
R 1912	(A,51,22)	RS1/16S222J
R 1913	(A,49,25)	RAB4C102J
R 1914	(B,43,34)	RS1/16S473J
R 1915	(A,70,12)	RS1/16S221J
R 1916	(A,58,32)	RAB4C473J
R 1917	(A,64,25)	RAB4C101J
R 1918	(A,67,17)	RAB4C101J
R 1919	(B,71,17)	RAB4C101J
R 1920	(B,76,31)	RS1/16S101J
R 1921	(A,66,28)	RS1/16S101J
R 1922	(B,65,8)	RAB4C101J
R 1923	(B,72,21)	RAB4C101J
R 1924	(B,77,24)	RAB4C101J
R 1925	(B,72,27)	RAB4C101J
R 1926	(B,81,32)	RAB4C101J
R 1927	(B,68,34)	RAB4C101J

CAPACITORS

C 1801	(A,115,31)	CKSRYB104K25
C 1804	(B,130,19)	CCSRCH102J50
C 1805	(A,116,34)	CKSRYB104K25
C 1806	(B,30,10)	CKSRYB104K25
C 1831	(A,33,18) (UC)	CKSRYF104Z50
C 1832	(A,19,35) (UC)	CKSRYF104Z50
C 1833	(A,13,9) (UC)	CKSRYF104Z50
C 1834	(A,6,15) (UC)	CKSRYF104Z50
C 1835	(A,162,25) (UC)	CKSRYF104Z50
C 1836	(A,133,18) (UC)	CKSRYF104Z50
C 1837	(A,150,35) (UC)	CKSRYF104Z50
C 1838	(A,148,7) (UC)	CKSRYF104Z50
C 1841	(A,156,34) (UC)	CKSRYF104Z50
C 1842	(A,15,33)	CKSRYF104Z50
C 1843	(A,24,9)	CKSRYF104Z50
C 1844	(A,7,18)	CKSRYF104Z50
C 1845	(A,32,18)	CKSRYF104Z50
C 1846	(A,151,7)	CKSRYF104Z50
C 1847	(A,143,33)	CKSRYF104Z50
C 1848	(A,136,24)	CKSRYF104Z50
C 1849	(A,161,17)	CKSRYF104Z50
C 1850	(A,154,34)	CKSRYF104Z50
C 1864	(A,79,20)	CKSRYB104K25
C 1865	(A,84,17)	CKSRYB104K25
C 1866	(A,92,27)	CKSRYB104K25
C 1867	(A,87,19)	CKSRYB104K25
C 1902	(B,35,32)	CSZSR100M16
C 1903	(B,43,23)	CKSRYB103K50
C 1905	(B,44,21)	CKSRYF104Z50
C 1907	(A,50,15)	CSZSR4R7M16
C 1908	(A,54,14)	CSZSR4R7M10
C 1909	(A,54,31)	CKSRYB103K50
C 1910	(A,49,31)	CSZSR4R7M10
C 1911	(A,59,25)	CKSRYB103K50
C 1912	(A,109,29)	CKSRYB103K50
C 1913	(B,43,32)	CCSRCH470J50
C 1914	(A,60,28)	CCSRCH470J50

D

Unit Number : CWX3381
Unit Name : CD Core Unit(S10.5COMP1)

MISCELLANEOUS

IC 201	(B,39,70)	IC	UPD63763CGJ
IC 203	(A,12,16)	IC	NJM2886DL3-33
IC 301	(A,28,18)	IC	BA5835FP
IC 701	(A,32,48)	IC	PE5561A
IC 704	(A,41,64)	IC	BR93L56RFVM-W
Q 101	(B,60,89)	Transistor	2SA1577
Q 701	(B,24,41)	Transistor	UN2111
X 701	(A,24,37)	Ceramic Resonator 4.000 MHz	CSS1652
S 901	(A,57,57)	Switch(HOME)	CSN1067
S 903	(B,23,78)	Switch(DSCSNS)	CSN1067
S 904	(B,42,87)	Switch(12EJ)	CSN1068
S 905	(B,28,88)	Switch(8EJ)	CSN1068

RESISTORS

R 101	(B,61,92)	RS1/10SR2R4J
R 102	(B,63,92)	RS1/10SR2R4J
R 103	(B,63,89)	RS1/10SR2R7J
R 104	(A,52,73)	RS1/16SS102J
R 201	(B,44,57)	RS1/16SS102J
R 202	(A,38,62)	RS1/16SS473J
R 203	(A,37,62)	RS1/16SS473J
R 210	(A,33,62)	RS1/16SS0R0J
R 214	(A,46,79)	RS1/16SS472J
R 216	(A,46,81)	RS1/16SS472J
R 221	(A,44,81)	RS1/16SS103J
R 222	(A,45,81)	RS1/16SS103J

Circuit Symbol and No.		Part No.
R 225	(B,52,78)	RS1/16SS103J
R 226	(B,52,77)	RS1/16SS393J
R 227	(A,44,75)	RS1/16SS562J
R 228	(A,46,72)	RS1/16SS122J
R 229	(A,44,72)	RS1/16SS472J
R 232	(A,46,75)	RS1/16SS122J
R 237	(B,22,64)	RS1/16SS221J
R 238	(B,22,65)	RS1/16SS221J
R 239	(B,22,66)	RS1/16SS221J
R 241	(B,26,63)	RS1/16SS333J
R 243	(B,26,62)	RS1/16SS333J
R 245	(B,26,69)	RS1/16SS333J
R 248	(B,55,74)	RS1/16SS105J
R 307	(A,19,20)	RS1/16SS183J
R 308	(A,17,20)	RS1/16SS183J
R 309	(A,18,18)	RS1/16SS183J
R 310	(A,17,16)	RS1/16SS183J
R 701	(B,26,44)	RS1/16SS221J
R 707	(B,32,45)	RS1/16SS473J
R 709	(A,36,35)	RS1/16SS222J
R 710	(B,41,46)	RS1/16SS102J
R 712	(A,45,57)	RS1/16SS222J
R 713	(B,40,57)	RS1/16SS222J
R 716	(B,29,37)	RS1/16SS472J
R 724	(B,31,36)	RS1/16S473J
R 726	(B,23,47)	RS1/16SS103J
R 727	(B,31,42)	RS1/16SS473J
R 729	(B,20,48)	RS1/16SS223J
R 730	(B,20,46)	RS1/16SS473J
R 734	(A,40,61)	RS1/16SS472J
R 740	(A,38,59)	RS1/16SS222J
R 746	(A,13,38)	RS1/16SS104J
R 750	(A,40,66)	RS1/16SS473J
R 751	(B,40,46)	RS1/16SS102J
R 902	(A,20,36)	RS1/16SS221J
R 905	(A,21,36)	RS1/16SS221J
R 906	(B,20,36)	RS1/16SS221J
R 909	(B,16,65)	RS1/16SS0R0J

CAPACITORS

C 103	(B,57,83)	CEVW101M16
C 108	(A,47,66)	CKSSYB104K10
C 201	(B,46,56)	CKSSYB102K50
C 202	(B,47,58)	CKSSYB104K10
C 205	(A,34,63)	CKSSYB104K10
C 208	(B,34,54)	CKSSYB104K10
C 209	(B,31,57)	CKSSYB104K10
C 210	(A,31,66)	CKSRYB105K10
C 216	(B,53,77)	CKSSYB332K50
C 217	(B,52,79)	CKSSYB104K10
C 218	(B,52,76)	CKSSYB473K10
C 219	(B,52,74)	CKSSYB104K10
C 220	(A,46,77)	CKSSYB182K50
C 221	(B,51,74)	CKSSYB104K10
C 222	(A,46,73)	CCSSCH560J50
C 223	(A,44,74)	CCSSCH4R0C50
C 224	(B,52,68)	CKSSYB104K10
C 225	(A,47,67)	CKSSYB103K16
C 226	(A,49,67)	CCSSCH680J50
C 227	(A,48,65)	CCSSCH470J50
C 228	(A,46,62)	CKSSYB103K16
C 232	(A,12,31)	CKSRYB105K10
C 237	(A,31,67)	CKSSYB104K10
C 239	(A,46,74)	CCSSCH220J50
C 246	(A,42,80)	CKSSYB104K10
C 249	(B,25,57)	CKSSYB221K50
C 250	(A,42,81)	CKSRYB102K50
C 251	(A,41,83)	CKSRYB102K50
C 303	(A,18,20)	CKSSYB472K25
C 304	(A,17,17)	CKSSYB103K16
C 307	(A,34,15)	CKSSYB104K10
C 308	(A,17,30)	CKSRYB105K10
C 701	(B,25,47)	CKSSYB104K10
C 703	(B,28,42)	CKSSYB103K16
C 706	(B,34,43)	CKSSYB104K10
C 707	(A,36,57)	CKSSYB104K10
C 714	(A,24,41)	CKSSYB104K10
C 719	(A,45,64)	CKSSYB104K10
C 722	(B,29,45)	CKSQYB475K6R3
C 903	(B,14,54)	CKSSYB471K50

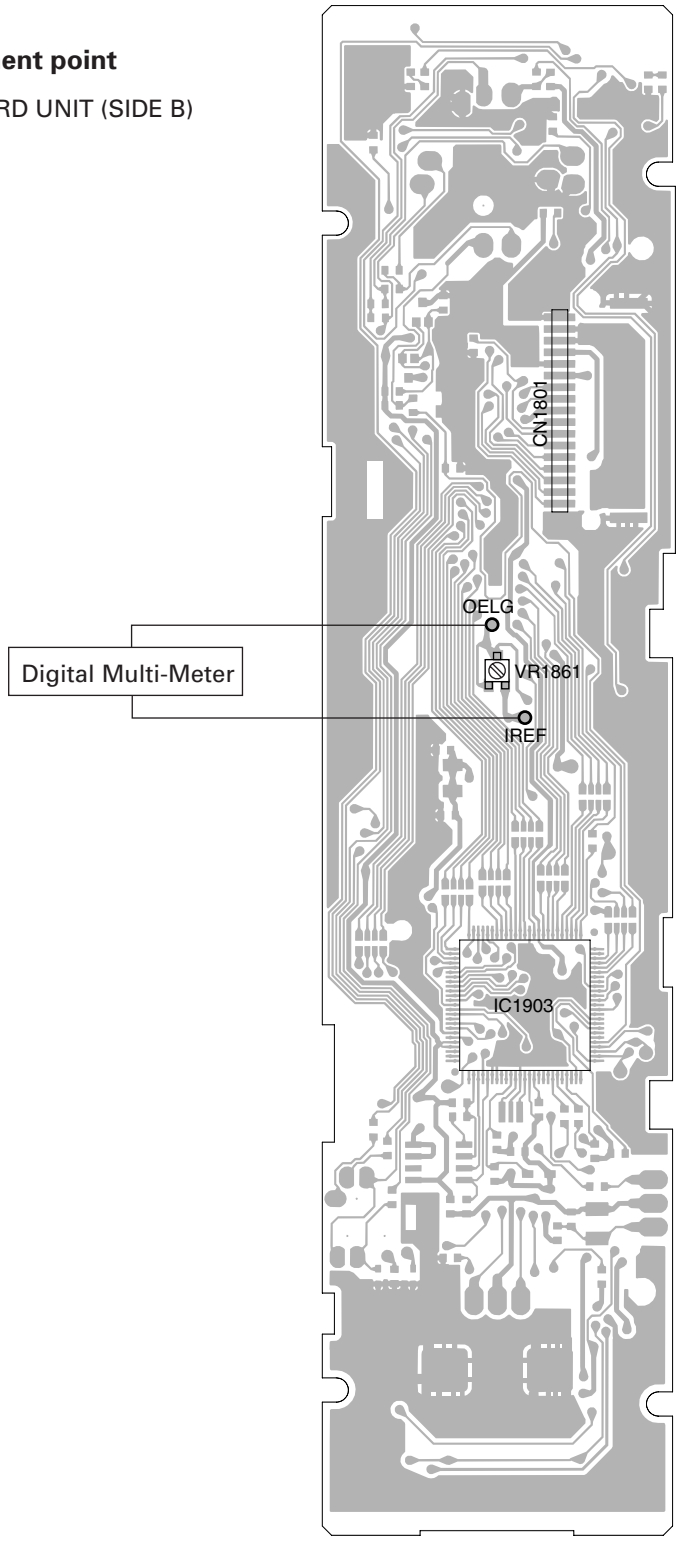
Miscellaneous Parts List

	Pickup Unit(P10.5)(Service)	CXX1942
M 1	Motor Unit(SPINDLE)	CXC6742
M 2	Motor Unit(LOADING/CARRIAGE)	CXC4026
M 10	Motor Unit(FLAP)	XXA7400

6. ADJUSTMENT
6.1 OEL ADJUSTMENT

● **Adjustment point**

KEYBOARD UNIT (SIDE B)



<When the OEL Unit has been replaced>

1. Use VR1861 to adjust the resistance between IREF and OELG to 3.4 kΩ.

6.2 CD ADJUSTMENT

1) Cautions on adjustments

• In this product the single voltage (3.3V) is used for the regulator. The reference voltage is the REFO1 (1.65V) instead of the GND.
If you should mistakenly short the REFO1 with the GND during adjustment, accurate voltage will not be obtained, and the servo's misoperation will apply excessive shock to the pickup. To avoid such problems:
a. Do not mix up the REFO1 with the GND when connecting the (-) probe of measuring instruments. Especially on an oscilloscope, avoid connecting the (-) probe for CH1 to the GND.
b. In many cases, measuring instruments have the same potential as that for the (-) probe. Be sure to set the measuring instruments to the floating state.
c. If you have mistakenly connected the REFO1 to the GND, turn off the regulator or the power immediately.

• Before mounting and removing filters or leads for adjustment, be sure to turn off the regulator.

• For stable circuit operation, keep the mechanism operating for about one minute or more after the regulator is turned on.

• In the test mode, any software protections will not work. Avoid applying any mechanical or electrical shock to the mechanism during adjustment.

• The RFI and RFO signals with a wide frequency range are easy to oscillate. When observing the signals, insert a resistor of 1k ohms in series.

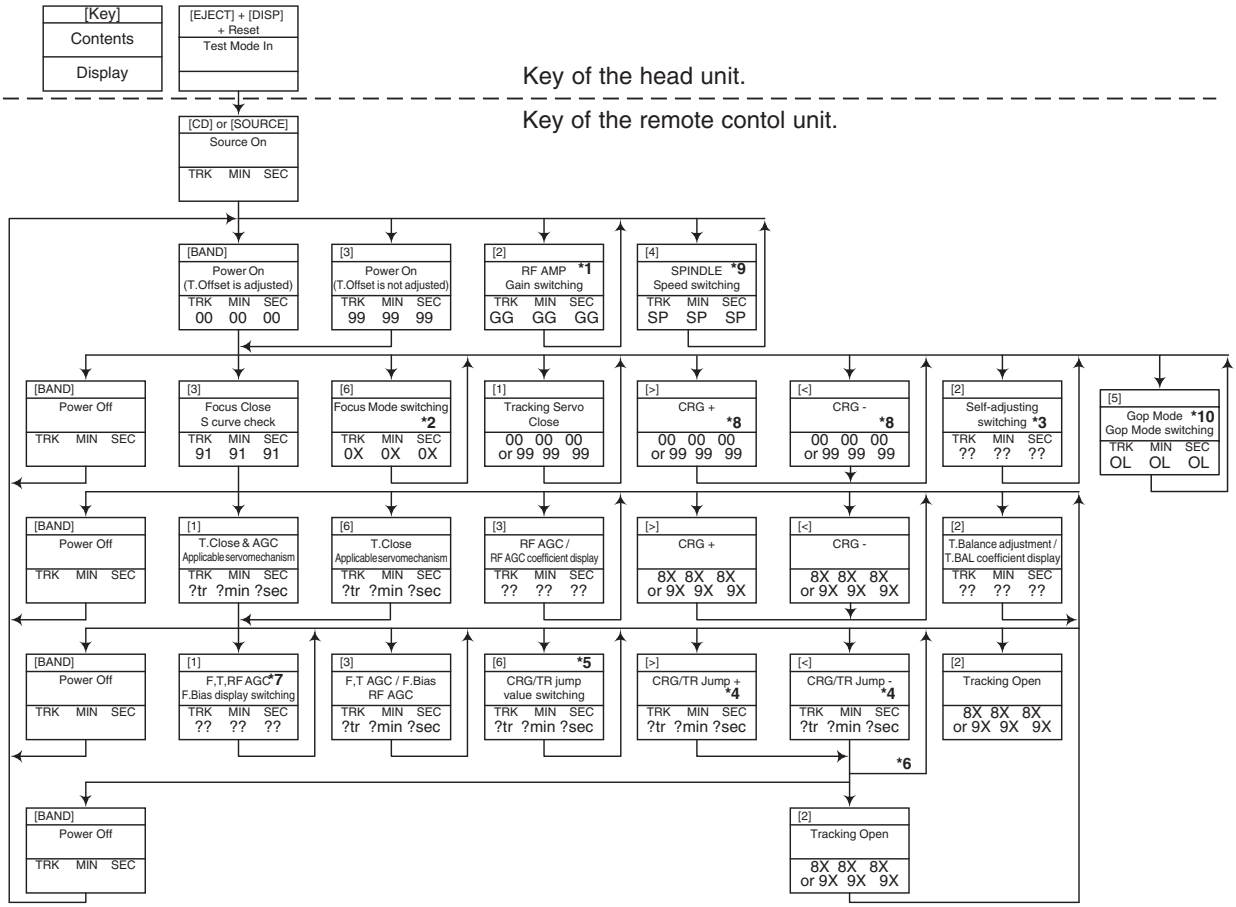
• The load and eject operation is not guarantied with the mechanism upside down. If the mechanism is blocked due to mistaken eject operation, reset the product or turn off and on the ACC to restore it.

2) Test mode

This mode is used to adjust the CD mechanism module.
• To enter the test mode.
While pressing the EJECT and DISP keys at the same time, reset.
• To exit from the test mode.
Turn off the ACC and back up.

Notes:
a. During ejection, do not press any other keys than the EJECT key until the loaded disc is ejected.
b. If you have pressed the (→) key or (←) key during focus search, turn off the power immediately to protect the actuator from damage caused by the lens stuck.
c. For the TR jump modes except 100TR, the track jump operation will continue even if the key is released.
d. For the CRG move and 100TR jump modes, the tracking loop will be closed at the same time when the key is released.
e. When the power is turned off and on, the jump mode is reset to the single TR (91), the RF amp gain is set to 0dB, and the auto-adjustment values are reset to the default settings.

● Flow Chart



*1) TYP (TRK MIN SEC) → + 6 dB ($^{TRK}06^{MIN}06^{SEC}06$) → + 12 dB ($^{TRK}12^{MIN}12^{SEC}12$)

*2) Focus Close → S Curve check setting → F EQ measurement setting
$^{TRK}00^{MIN}00^{SEC}00$ ($^{TRK}99^{MIN}99^{SEC}99$) $^{TRK}01^{MIN}01^{SEC}01$ $^{TRK}02^{MIN}02^{SEC}02$

*3) F.Offset Display → RF.Offset → T.Offset Display → Switch to the order of the original display

*4) 1TR/4TR/10TR/32TR/100TR

*5) Single → 4TR → 10TR → 32TR → 100TR → CRG Move
9x(8x):91(81) 92(82) 93(83) 94(84) 95(85) 96(86)

*6) Only at the time of CRG move, 100TR jump

*7) TRK/MIN/SEC → F.AGC → T.AGC Gain → F.Bias → RF AGC

*8) CRG motor voltage = 2 [V]

*9) TYP (1X) (TRK MIN SEC) → 2X ($^{TRK}22^{MIN}22^{SEC}22$) → 1X ($^{TRK}11^{MIN}11^{SEC}11$)

*10) OFF(TYP) (TRK MIN SEC) → FORCUS ($^{TRK}70^{MIN}70^{SEC}70$) → TRACKING ($^{TRK}71^{MIN}71^{SEC}71$)

[Key]	Operation Test Mode
[BAND]	Power On/Off
[>]	CRG + / TR Jump + (Direction of the external surface)
[<]	CRG - / TR Jump - (Direction of the internal surface)
[1]	T. CLS & AGC & Applicable servomechanism / AGC,AGC display setting
[2]	RF Gain switching / Offset adjustment display / T.Balance adjustment / T. Open
[3]	F. Close,S Curve / Rough Servo and RF AGC / F,T,RF AGC
[4]	SPDL 1X/2X switching As for the double speed(2x), audio output cannot be supported.
[5]	Error Rate measurement ON : ERR 30Counts Start BER display data[%]
[6]	F. Mode switching / Tracking Close / CRG•TR Jump Switching

- As for the double speed (2x), audio output cannot be supported

*) • After the [Eject] key is pressed keys other than the [Eject] key should not be pressed, until disc ejection is complete.
- When the key [2] or [3] is pressed during the Focus Search, the power supply should be immediately turned off (otherwise the lens sticks to Wall, causing the actuator to be damaged).
- In the case of TR jump other than to 100TR, the function shall continue to be processed even if the TR jump key is released. As for the CRG Move and 100TR Jump, the mechanism shall be set to the Tracking Close mode when the key is released.
- When the power is turned on/off the jump mode is reset to the Single TR (91) while the gain of the RFAMP is reset to 0 dB. At the same time all the self-adjusting values shall return to the default setting.

6.3 CHECKING THE GRATING AFTER CHANGING THE PICKUP UNIT

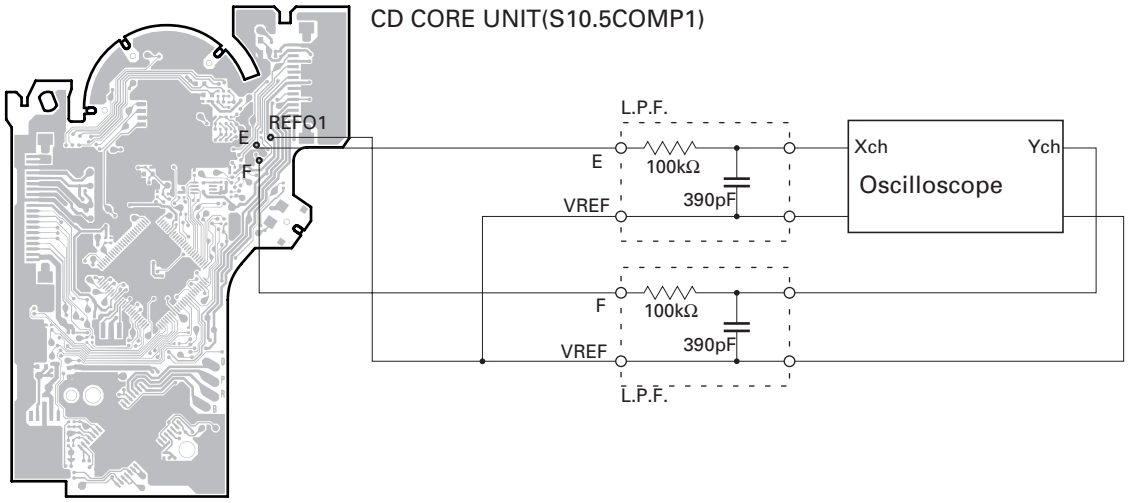
• **Note :**
The grating angle of the PU unit cannot be adjusted after the PU unit is changed. The PU unit in the CD mechanism module is adjusted on the production line to match the CD mechanism module and is thus the best adjusted PU unit for the CD mechanism module. Changing the PU unit is thus best considered as a last resort. However, if the PU unit must be changed, the grating should be checked using the procedure below.

• **Purpose :**
To check that the grating is within an acceptable range when the PU unit is changed.

• **Symptoms of Mal-adjustment :**
If the grating is off by a large amount symptoms such as being unable to close tracking, being unable to perform track search operations, or taking a long time for track searching.

• **Method :**

• Measuring Equipment	• Oscilloscope, Two L.P.F.
• Measuring Points	• E, F, REFO1
• Disc	• TCD-782
• Mode	• TEST MODE



• **Checking Procedure**
1. In test mode, load the disc and switch the 3V regulator on.
2. Using the → and ← buttons, move the PU unit to the innermost track.
3. Press key 3 to close focus, the display should read "91". Press key 2 to implement the tracking balance adjustment the display should now read "81". Press key 3. The display will change, returning to "81" on the fourth press.
4. As shown in the diagram above, monitor the LPF outputs using the oscilloscope and check that the phase difference is within 75° . Refer to the photographs supplied to determine the phase angle.
5. If the phase difference is determined to be greater than 75° try changing the PU unit to see if there is any improvement. If, after trying this a number of times, the grating angle does not become less than 75° then the mechanism should be judged to be at fault.

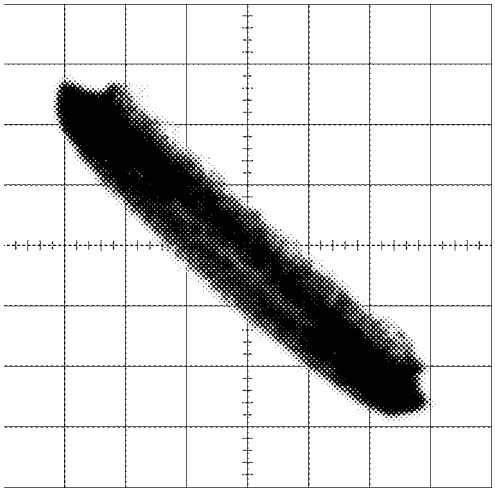
• **Note**
Because of eccentricity in the disc and a slight misalignment of the clamping center the grating waveform may be seen to "wobble" (the phase difference changes as the disc rotates). The angle specified above indicates the average angle.

• **Hint**
Reloading the disc changes the clamp position and may decrease the "wobble".

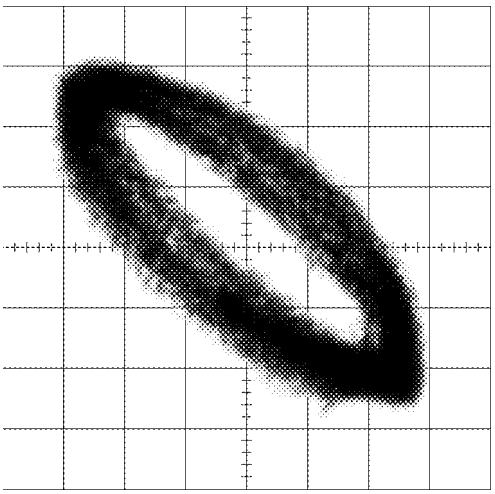
Grating waveform

Ech → Xch 20mV/div, AC
Fch → Ych 20mV/div, AC

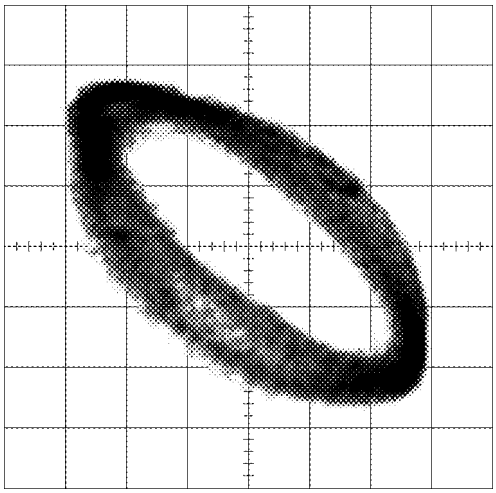
0°



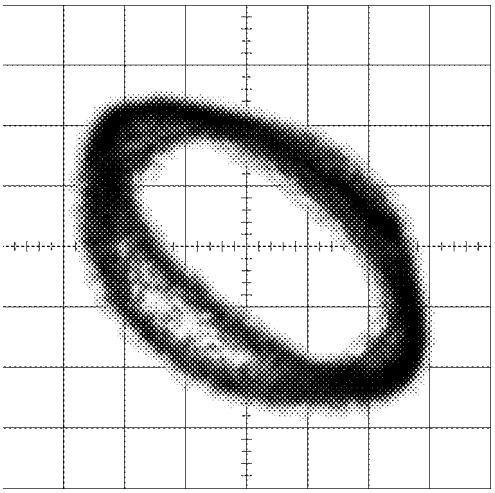
30°



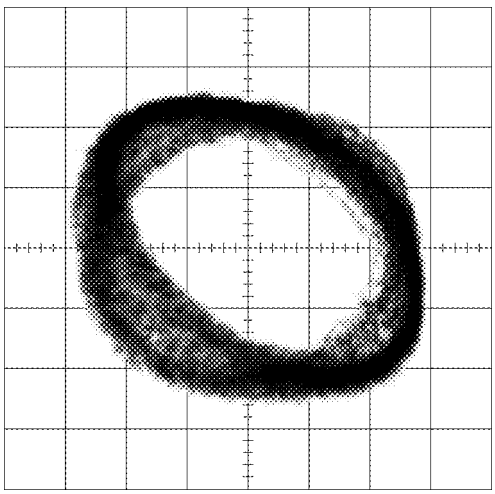
45°



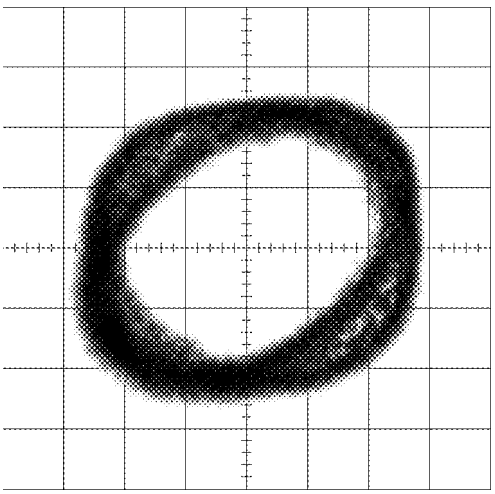
60°



75°



90°



6.4 ERROR MODE

● Error Messages

If a CD is not operative or stopped during operation due to an error, the error mode is turned on and cause(s) of the error is indicated with a corresponding number. This arrangement is intended at reducing nonsense calls from the users and also for facilitating trouble analysis and repair work in servicing.

(1) Basic Indication Method

1) When SERRORM is selected for the CSMOD (CD mode area for the system), error codes are written to DMIN (minutes display area) and DSEC (seconds display area). The same data is written to DMIN and DSEC. DTNO remains in blank as before.

2) Head unit display examples

Depending on display capability of LCD used, display will vary as shown below. xx contains the error number.

8-digit display	6-digit display	4-digit display
ERROR–xx	ERR–xx	E–xx

(2) Error Code List

Code	Class	Displayed error code	Description of the code and potential cause(s)
10	Electricity	Carriage Home NG SERVO LSI Communication Error	CRG can't be moved to inner diameter. CRG can't be moved from inner diameter. → Failure on home switch or CRG move mechanism. Communication error between microcomputer and SERVO LSI.
11	Electricity	Focus Servo NG	Focusing not available. → Stains on rear side of disc or excessive vibrations on REWRITABLE.
12	Electricity	Spindle Lock NG Subcode NG	Spindle not locked. Sub-code is strange (not readable). → Failure on spindle, stains or damages on disc, or excessive vibrations. A disc not containing CD-R data is found. Turned over disc are found, though rarely. CD signal error.
17	Electricity	Setup NG	AGC protection doesn't work. Focus can be easily lost. → Damages or stains on disc, or excessive vibrations on REWRITABLE.
30	Electricity	Search Time Out	Failed to reach target address. → CRG tracking error or damages on disc.
44	Electricity	ALL Skip	Skip setting for all track. (CD-R/RW)
50	Mechanism	CD On Mech Error	Mechanical error during CD ON. → Defective loading motor, mechanical lock and mechanical sensor.
A0	System	Power Supply NG	Power (VD) is ground faulted. → Failure on SW transistor or power supply (failure on connector).

Remarks: Mechanical errors are not displayed (because a CD is turned off in these errors).

Unreadable TOC does not constitute an error. An intended operation continues in this case.

Upper digits of an error code are subdivided as shown below:

1x: Setup relevant errors, 3x: Search relevant errors, Ax: Other errors.

6.5 E.VOL IC OSCILLATING FREQUENCY ADJUSTMENT

Specification	Measuring point	Adjustment point	Remarks
400 kHz ± 10 kHz	IC281 (Pin 49) TP•CPF	VR281 (for source other than AM)	Beat may be generated for AM

Note)
The frequency is always 400 kHz for the sources other than AM, however, it may become 514 kHz by received frequency for AM, adjust it with the source other than AM.

6.6 SYSTEM MICROCOMPUTER TEST PROGRAM

● PCL output
In the normal operation mode (with the detachable panel installed, the ACC switched ON, the standby mode cancelled), shift the TEST1 (Pin 86) terminal to H.
The clock signal is output from the PCL1 terminal (Pin 37).
The frequency of the clock signal is 468.750 kHz that is one 32nd of the fundamental frequency.
The clock signal should be 468.750 kHz ± 13 Hz.
If the clock signal is out of the range, the X'tal (X601) should be replaced with new one.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

● **Removing the Case (not shown)**

1. Remove the two screws and then remove the Case.

● **Removing the CD Mechanism Module (Fig.1)**

1 Remove the four screws.

Disconnect the connector and then remove the CD Mechanism Module.

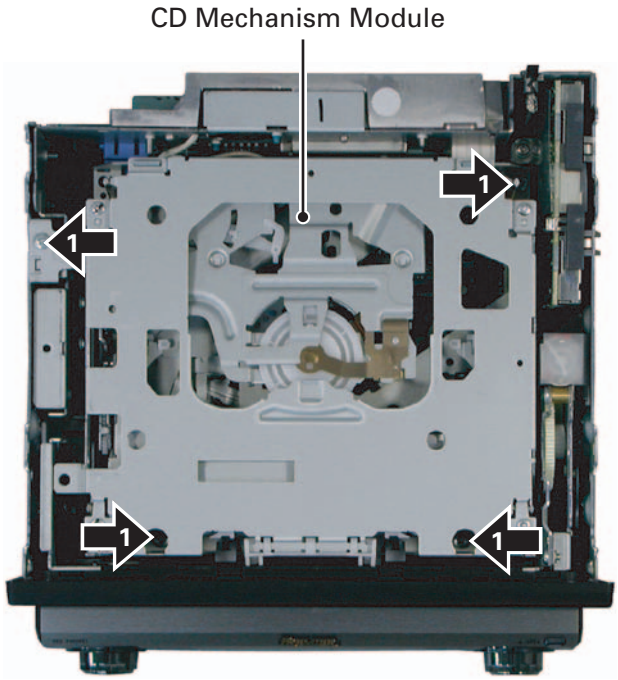


Fig.1

● **Removing the Grille Assy (Fig.2)**

1 Remove the four screws.

Disconnect the connector and then remove the Grille Assy.

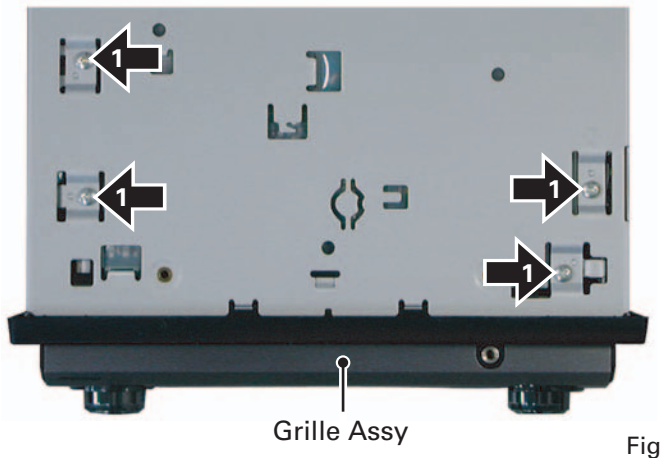


Fig.2

● Removing the Tuner Amp Unit (Fig.3)

1. Remove the two screws.
2. Straighten the tabs at three locations indicated.
3. Remove the screw and then remove the Tuner Amp Unit.

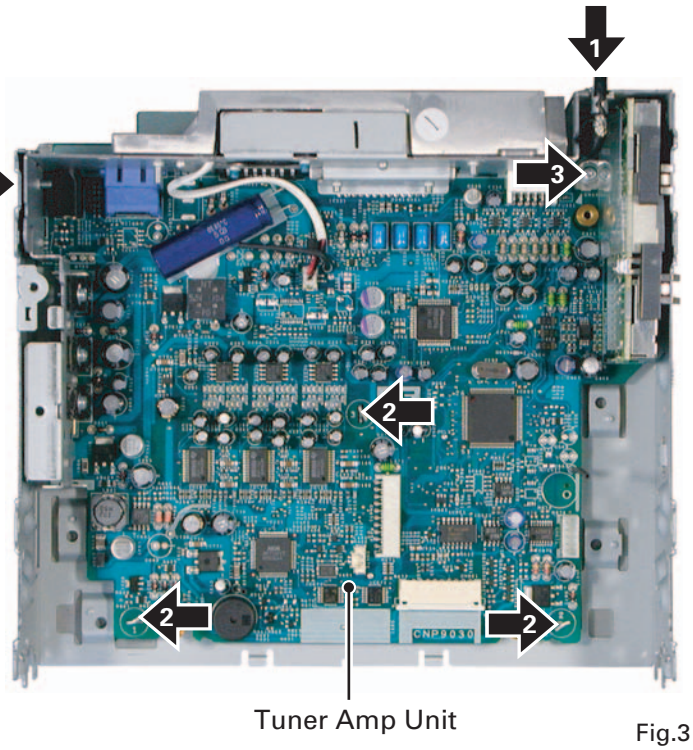
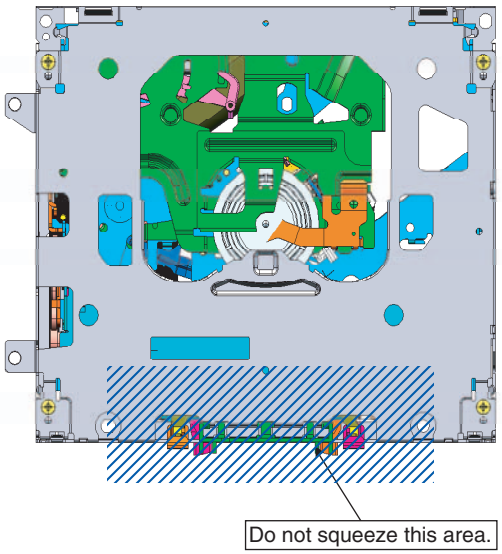


Fig.3

● How to hold the Mechanism Unit

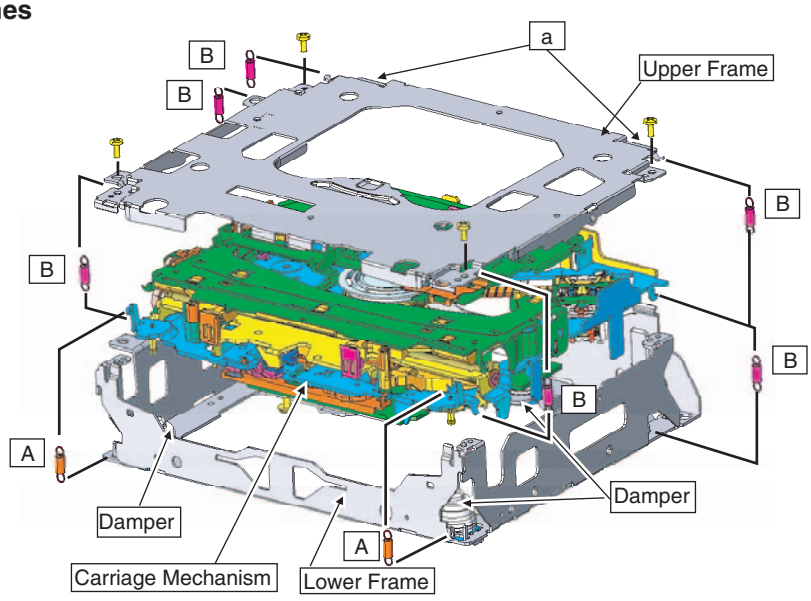
1. Hold the Upper and Lower Frames.
2. Do not hold the front portion of the Upper Frame, because it is not very solid.



● Removing the Upper and Lower Frames

1. With a disc inserted and clamped in the mechanism, remove the two Springs (A), the six Springs (B), and the four Screws.
2. Turn the Upper Frame using the part "a" as a pivot, and remove the Upper Frame.
3. While lifting the Carriage Mechanism, remove it from the three Dampers.

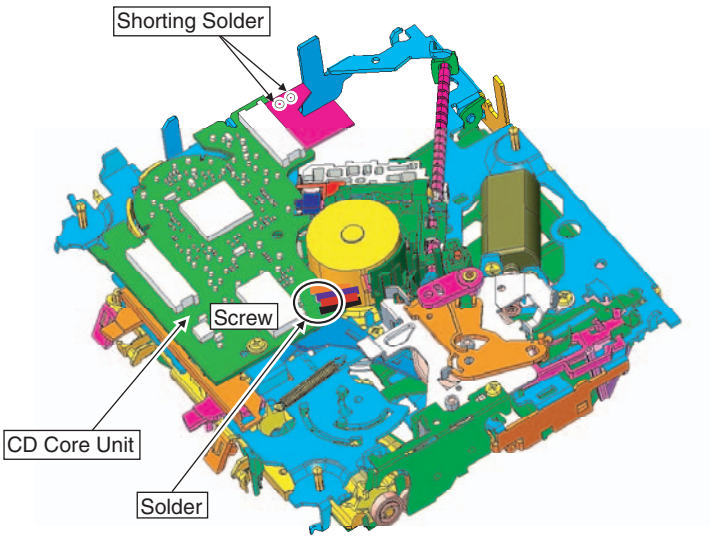
Caution: When assembling, be sure to apply some alcohol to the Dampers and assemble the mechanism in a clamped state.



● How to remove the CD Core Unit

1. Apply Shorting Solder to the flexible cable of the Pickup, and disconnect it from the connector.
2. Unsolder the four leads, and loosen the Screw.
3. Remove the CD Core Unit.

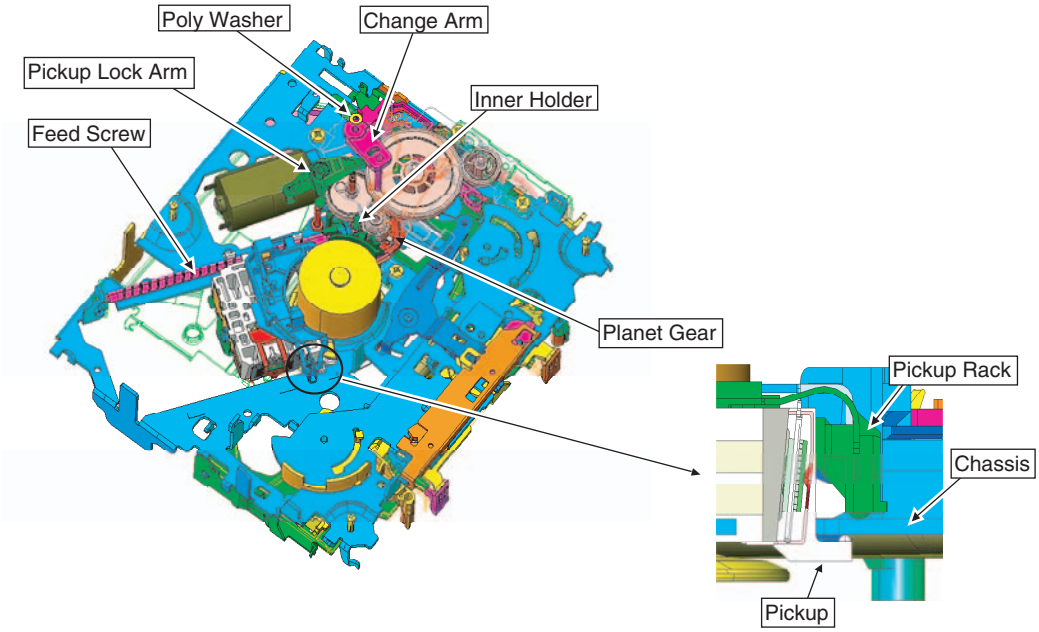
Caution: When assembling the CD Core Unit, assemble it with the SW in a clamped state so as not to damage it.



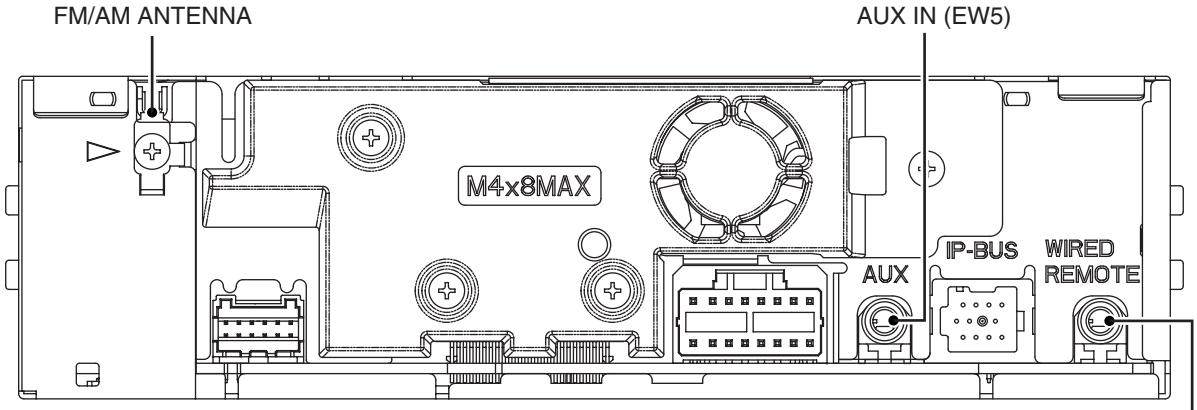
● How to remove the Pickup Unit

1. Make the system in the carriage mechanism mode, and have it clamped.
2. Remove the CD Core Unit and remove the leads from the Inner Holder.
3. Remove the Poly Washer, Change Arm, and Pickup Lock Arm.
4. While releasing from the hook of the Inner Holder, lift the end of the Feed Screw.

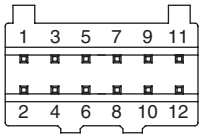
Caution: When assembling, move the Planet Gear to the load/eject position before setting the Feed Screw in the Inner Holder.
Assemble the sub unit side of the Pickup, taking the plate (Chassis) in-between. When treating the leads of the Load Carriage Motor Assy, do not make them loose over the Feed Screw.



7.1.2 CONNECTOR FUNCTION DESCRIPTION

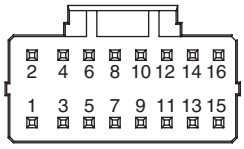


RCA OUT



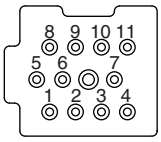
1. FL+
2. GND
3. FR+
4. GND
5. RL+
6. GND
7. RR+
8. GND
9. SWL+
10. GND
11. SWR+
12. GND

POWER SUPPLY



1. B. UP
2. GND
3. ILM
4. B. REM
5. ACC
6. NC
7. NC
8. MUTE
9. RL-
10. FL-
11. RL+
12. FL+
13. RR-
14. FR-
15. RR+
16. FR+

IP-BUS



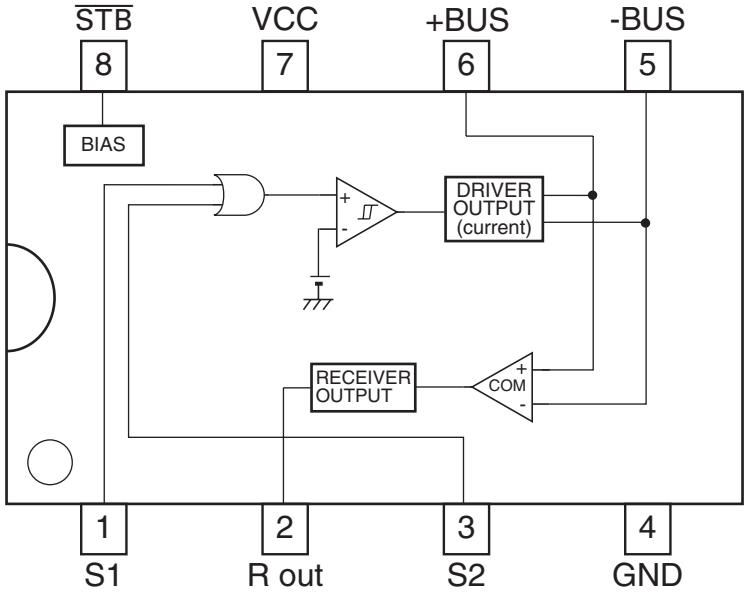
1. BUS+
2. GND
3. GND
4. NC
5. BUS-
6. GND
7. BUS L+ INPUT
8. ASENB
9. BUS R+ INPUT
10. BUS R- INPUT
11. BUS L- INPUT

WIRED REMOTE CONTROL (UC, EW5)

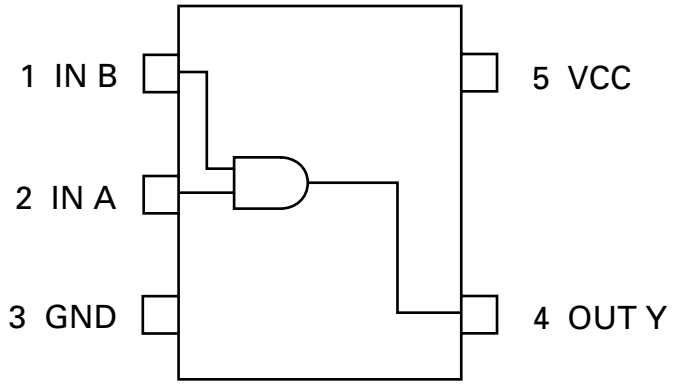
7.2 IC

HA12241FP	PEG176A
TC7SH08FUS1	PAL007B
AK7732VT	PEG179A
PCM1793DB	PD8160A
PM9009A	GP1UX51RK
TC74VHCT08AFTS1	UPD63763CGJ
TC74VHC08FTS1	PE5561A
BR25L320F-W	BR93L56RFVM-W
PEG178A	NJM2886DL3-33

HA12241FP



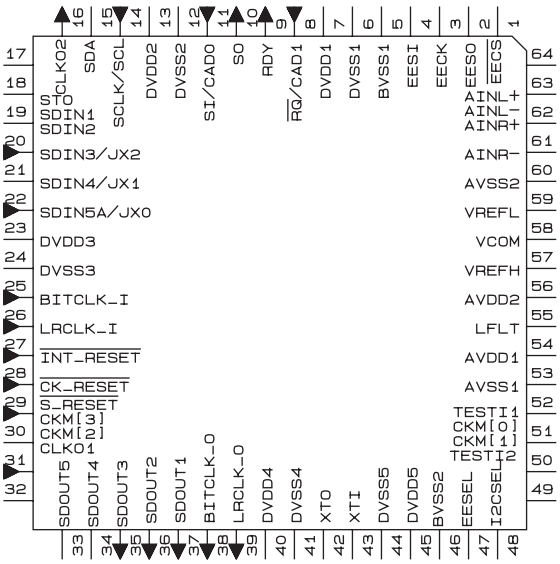
* TC7SH08FUS1



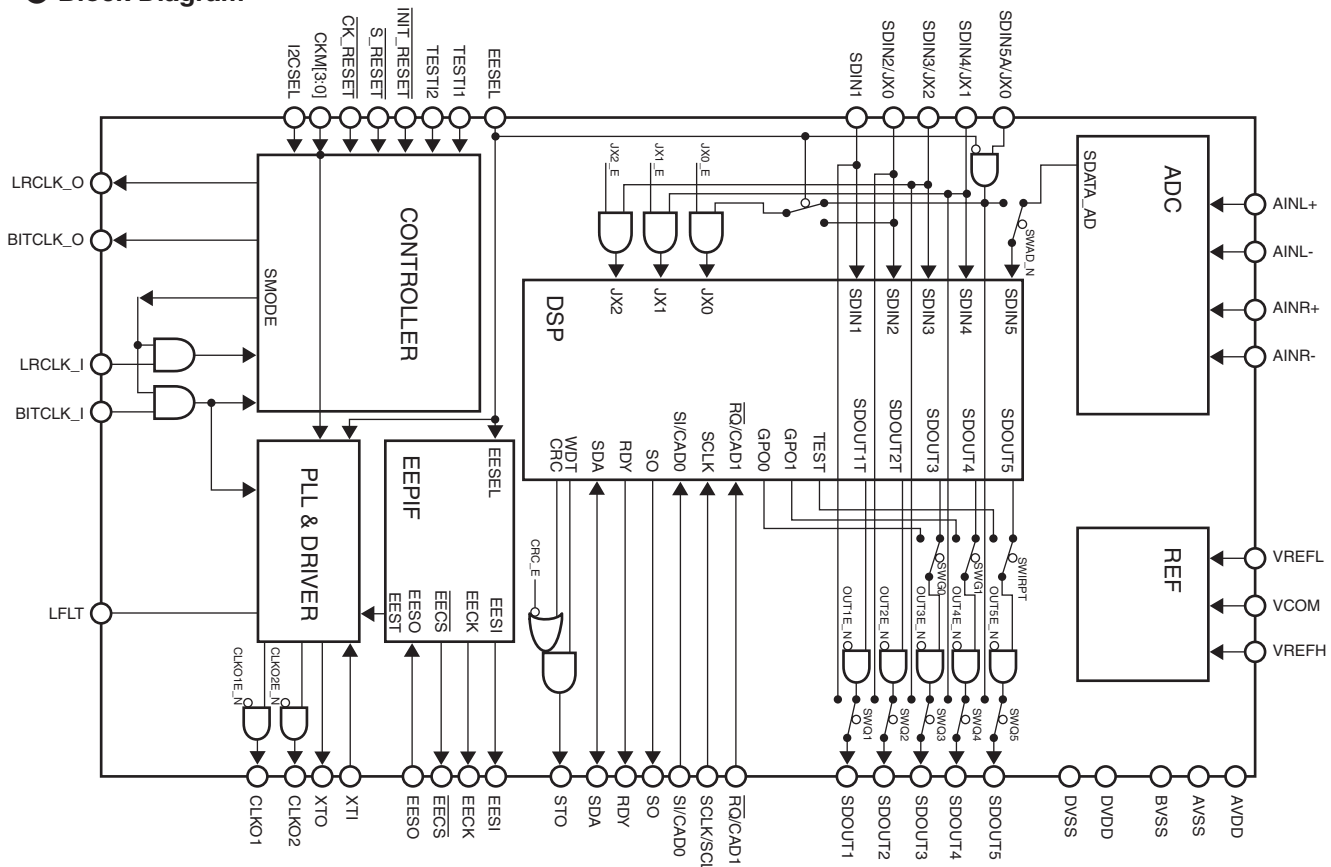
IC's marked by * are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

* AK7732VT

● Pin Layout

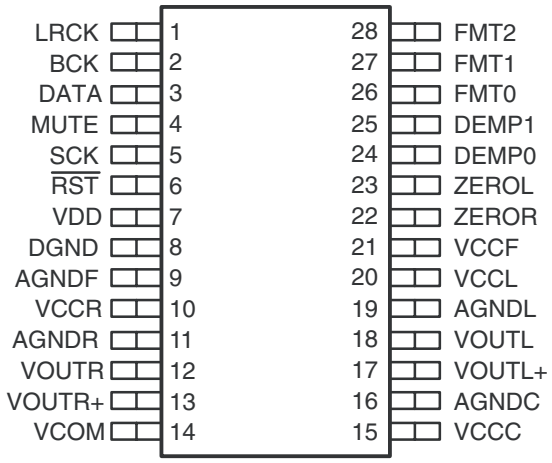


● Block Diagram

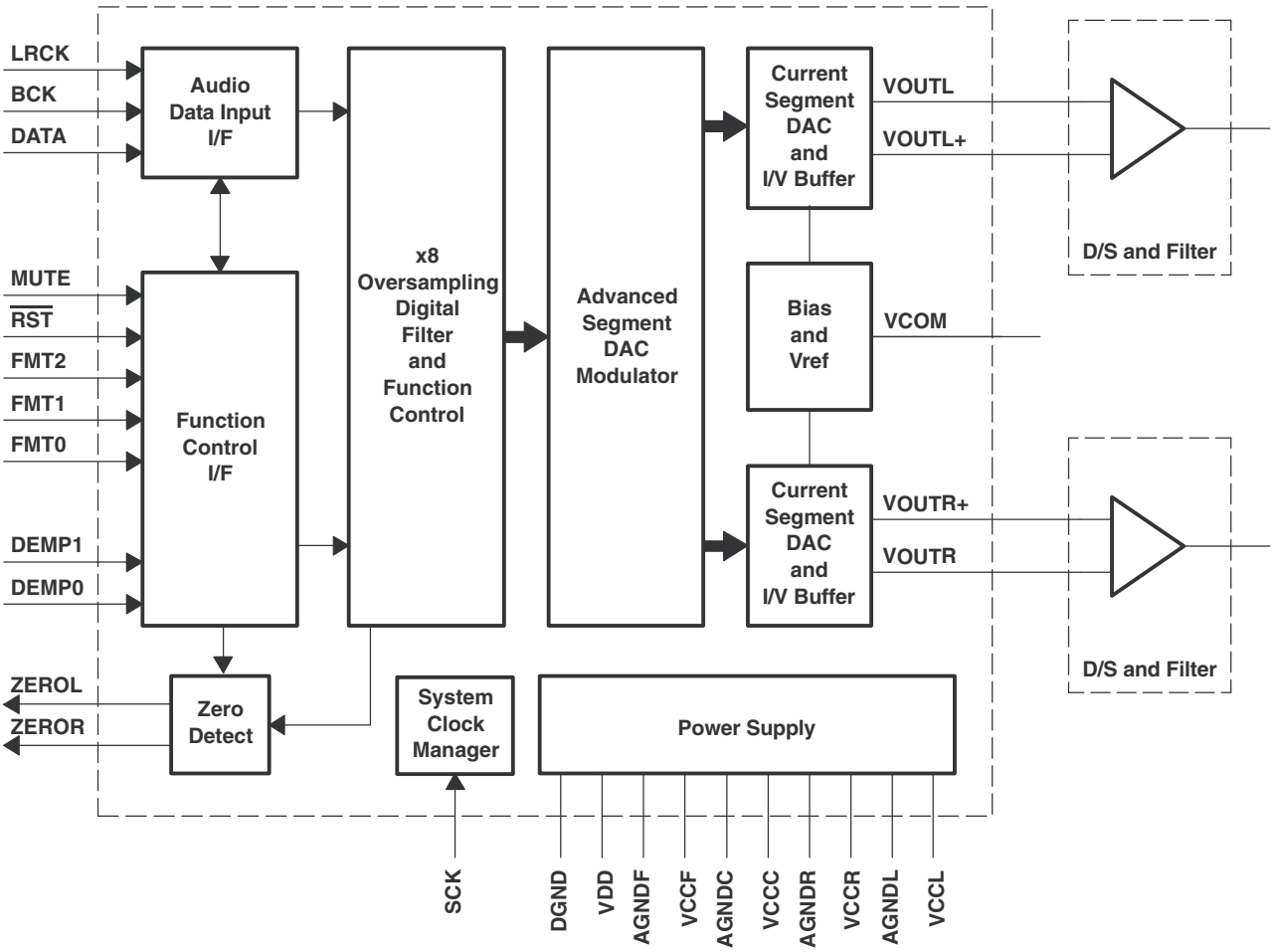


* PCM1793DB

● Pin Layout



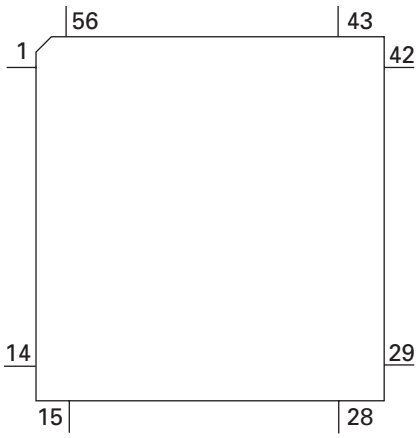
● Block Diagram



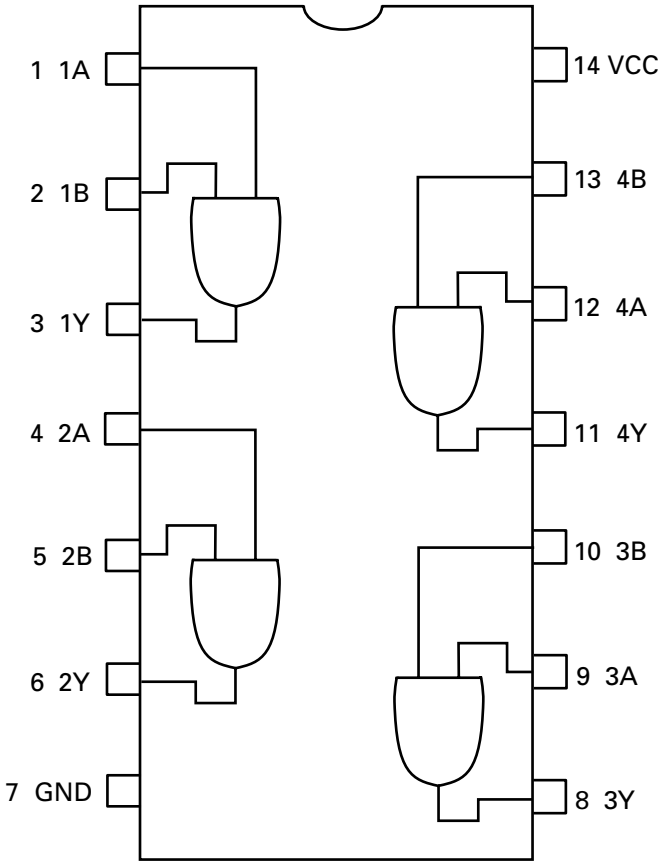
● Pin Functions(PM9009A)

Pin No.	Pin Name	I/O	Function and Operation
1	Si1L+	I	Stereo source signal input 1 Lch (Balance : Hot)
2	Si1L-	I	Stereo source signal input 1 Lch (Balance : Cold)
3	Si1R+	I	Stereo source signal input 1 Rch (Balance : Cold)
4	Si1R-	I	Stereo source signal input 1 Rch (Balance : Hot)
5	S.GND.1		Signal GND
6	Si2L	I	Stereo source signal input 2 Lch
7	Si2R	I	Stereo source signal input 2 Rch
8	S.GND.2		Signal GND
9	Si3L	I	Stereo source signal input 3 Lch
10	Si3R	I	Stereo source signal input 3 Rch
11	Si4L	I	Stereo source signal input 4 Lch
12	Si4R	I	Stereo source signal input 4 Rch
13	S.GND.3		Signal GND
14	So2L	O	Source selector signal output 2 Lch
15	So2R	O	Source selector signal output 2 Rch
16	So1L	O	Source selector signal output 1 Lch
17	So1R	O	Source selector signal output 1 Rch
18	S.GND.4		Signal GND
19	Vi1	I	Volume signal input 1ch
20	Vi2	I	Volume signal input 2ch
21	S.GND.5		Signal GND
22	Vi3	I	Volume signal input 3ch
23	Vi4	I	Volume signal input 4ch
24	S.GND.6		Signal GND
25	Vi5	I	Volume signal input 5ch
26	Vi6	I	Volume signal input 6ch
27	S.GND.7		Signal GND
28	Vi7	I	Volume signal input 7ch
29	Vo1a	O	Volume signal output 1ch (for RCA-out)
30	Vo2a	O	Volume signal output 2ch (for RCA-out)
31	Vo3a	O	Volume signal output 3ch (for RCA-out)
32	Vo4a	O	Volume signal output 4ch (for RCA-out)
33	Vo5a	O	Volume signal output 5ch (for RCA-out)
34	Vo6a	O	Volume signal output 6ch (for RCA-out)
35	Vo7a	O	Volume signal output 7ch (for RCA-out)
36	Vo1b	O	Volume signal output 1ch (for Power-IC)
37	Vo2b	O	Volume signal output 2ch (for Power-IC)
38	Vo3b	O	Volume signal output 3ch (for Power-IC)
39	Vo4b	O	Volume signal output 4ch (for Power-IC)
40	Vo5b	O	Volume signal output 5ch (for Power-IC)
41	Vo6b	O	Volume signal output 6ch (for Power-IC)
42	D.GND		Digital GND
43	SDA	I	Microcomputer interface serial data signal input
44	SCK	I	Microcomputer interface serial clock signal input
45	CS	I	Microcomputer interface chip select signal input
46	FCKSEL	I	Select input of VCO oscillation frequency
47	Vee		Power supply
48	NC1		Not used
49	NC2		Not used
50	P.GND		Power GND
51	NC3		Not used
52	Vcc		Power supply
53	ADJ		Adjustment of VCO oscillation frequency
54	S.GND.MU		Signal GND
55	EXi+	I	Monaural source signal input (Balance : Hot)
56	EXi-	I	Monaural source signal input (Balance : Cold)

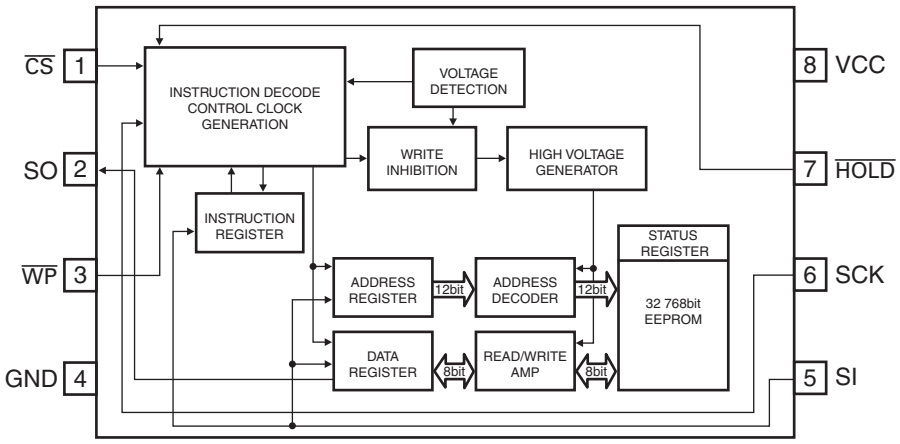
* PM9009A



* TC74VHCT08AFTS1
* TC74VHC08FTS1



* BR25L320F-W

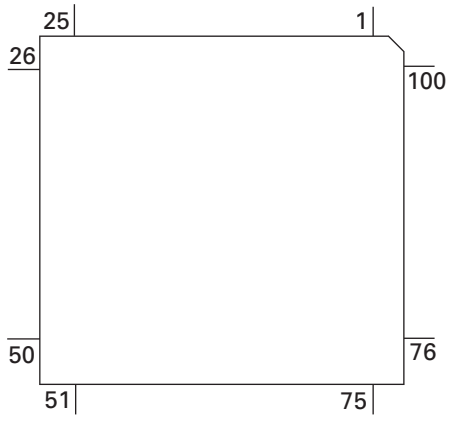


● Pin Functions(PEG178A : UC and ES model, PEG176A : EW5 model)

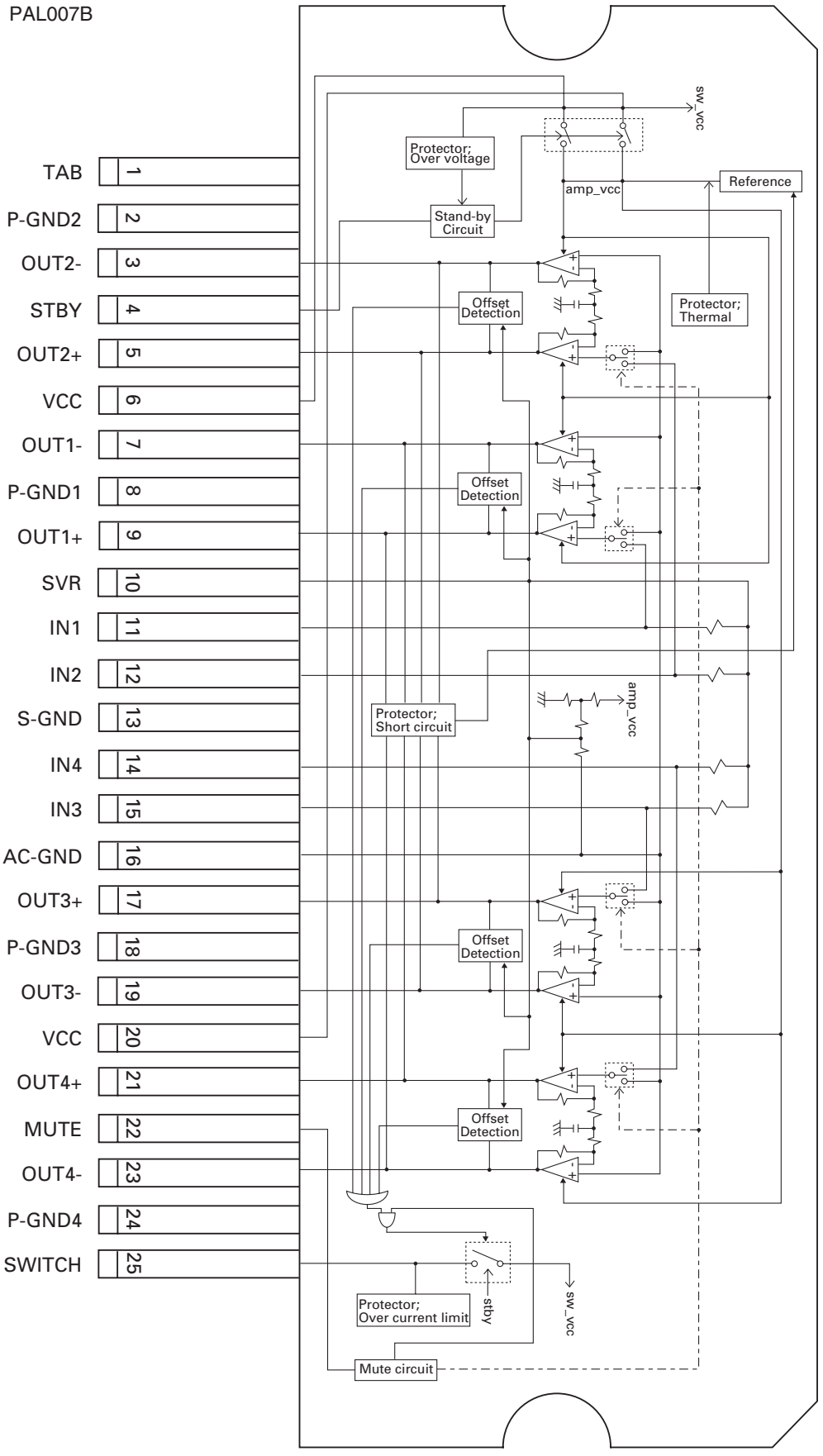
Pin No.	Pin Name	I/O	Function and Operation
1	TUNPCE1	O	TUNER : Chip enable output (PLL)
2	TUNPCE2	O	TUNER : Chip enable output (EEPROM)
3	DSPOUT	O	DSP, E.VOL : Data output
4	DSPIN	I	DSP : Data input
5	DSPCK	O	DSP, E.VOL : Clock output
6	BYTE	I	External data bus width change input
7	CNVSS	I	Processor mode change input
8	IPPW	O	IP-BUS : Driver power supply control output
9	ASENBO	O	IP-BUS : Slave ACC sense output
10	$\overline{\text{RESET}}$	I	Reset input
11	XOUT	O	Crystal oscillating element connection output
12	VSS		GND
13	XIN	I	Crystal oscillating element connection input
14	VCC		Power supply
15	$\overline{\text{NMI}}$		Not used
16	$\overline{\text{RCK}}$	I	RDS : Clock input (EW)
17	$\overline{\text{LDET}}$	I	RDS : PLL Lock detect input (EW)
18	AMPPW	O	Power amplifier power supply control output
19	RX2	I	IP-BUS : Data input 2
20	FCKSEL	O	Switch output of VCO oscillation frequency
21	EVOLCS	O	E.VOL : Chip select output
22	PEE	O	BEEP sound output
23	SYSPW	O	System power control output
24	DSPPW	O	DSP : Power control output
25	DALMON	O	For consumption low-current output
26	MUTE	O	Mute output
27	RX	I	IP-BUS : Data input
28	TX	O	IP-BUS : Data output
29	BSO	O	PBUS : Serial data output
30	BSI	I	PBUS : Serial data input
31	BSCK	O	PBUS : Clock output
32	KEYD	I	Wired remote control key input (UC, EW)
33	DPDT	O	GRILLE : Data output
34	KYDT	I	GRILLE : Data input
35	MCKCONT		Not used
36	MCKRQ	I	Master clock request input
37	PCL	O	Output for clock adjustment
38	NC		Not used
39	$\overline{\text{RDS57K}}$	I	RDS : 57 kHz count pulse input (EW)
40	DSP_RAMCLR	O	DSP : RAM clear output
41	INIT_RESET	O	DSP : System reset output
42	CK_RST	O	DSP : Clock reset output
43	DSPS_RST	O	DSP : System reset output
44	CKM[2]	O	DSP : Clock mode select output
45	AMTPW		Not used
46	DSPRQ	O	DSP : Interface request output
47	DSPRDY	I	DSP : Data write ready input
48	$\overline{\text{BSRQ}}$	I	PBUS : Communication request output
49	BRST	O	PBUS : Reset output
50	BRXEN	I/O	PBUS : Communication input/output
51	LRCKOK	I	DSP : Clock stability information input
52	JSNSON1	O	"H" output at Jack sense mode (UC, ES)
53	CDRESET	O	CD : Microcomputer reset output
54	DIM_WH	O	Key illumination dimmer output (White)
55	DIM_BL	O	Key illumination dimmer output (Blue) (UC, ES)
56	ILMPW	O	Illumination output
57	SWVDD	O	GRILLE : Chip enable output
58	OELPW	O	OEL : Power supply output
59	MODEL	I	Model select input (UC, ES)
60	VCC		Power supply
61	DSPMOD	I	DSP : STD/NW setting input
62	VSS		GND

Pin No.	Pin Name	I/O	Function and Operation
63	ROMCS		OPEN
64	ROMCK		OPEN
65	ROMDATA		Pull up
66	TELIN	I	TEL mute input
67	ROMSCK	O	1day backup : Clock output
68	ROMSO	O	1day backup : Data output
69	ROMSI	I	1day backup : Data input
70	ROMCSB	O	1day backup : Chip select output
71	NC		Not used
72	$\overline{\text{ASENS}}$	I	ACC sense input
73	$\overline{\text{BSENS}}$	I	Backup sense input
74	$\overline{\text{ISENS}}$	I	Illumination sense input
75	ROT1	I	Rotary encoder pulse input 1
76	ROT0	I	Rotary encoder pulse input 0
77	FLPILM	O	Inside of flap illumination output
78	FLPPW	O	Flap motor driver power ON/OFF output
79	FLPOPN	O	Flap motor open output
80	FLPCLS	O	Flap motor close output
81	FOPNSW	I	Flap open sense input
82	FCLSSW	I	Flap close sense input
83	AEQON	O	AEQ ON output (UC, ES)
84	AUXON	O	AUX ON output (UC, ES)
85	JSNSON2	O	"H" output at Jack sense mode (UC, ES)
86	TESTIN	I	Test program input
87	JCKSNS	I	Jack sense input
88	BTIND	I	Battery indicator input
89	$\overline{\text{RDSLK}}$	I	RDS : Lock signal input (EW)
90	RDT	I	RDS : Data input (EW)
91	DSENS	I	Detach sense input
92	KEYAD	I	Wired remote control key input (UC, EW)
93	ASLIN	I	ASL input (EW)
94	AVSS		Analog GND
95	SL	I	Signal level input
96	VREF		Reference voltage
97	AVCC		Analog power supply
98	TUNPDI	I	TUNER : PLL communication data input
99	TUNPDO	O	TUNER : Data output(PLL)
100	TUNPCK	O	TUNER : Clock output(PLL)

* PEG178A, PEG176A



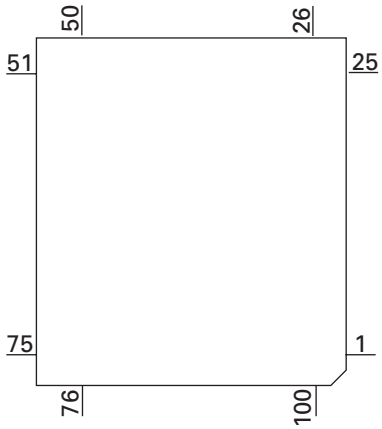
PAL007B


TAB 1
P-GND2 2
OUT2- 3
STBY 4
OUT2+ 5
VCC 6
OUT1- 7
P-GND1 8
OUT1+ 9
SVR 10
IN1 11
IN2 12
S-GND 13
IN4 14
IN3 15
AC-GND 16
OUT3+ 17
P-GND3 18
OUT3- 19
VCC 20
OUT4+ 21
MUTE 22
OUT4- 23
P-GND4 24
SWITCH 25
sw_vcc
Protector; Over voltage
Stand-by Circuit
amp_vcc
Reference
Offset Detection
Protector; Thermal
Protector; Short circuit
Protector; Over current limit
stby
Mute circuit

● **Pin Functions (PEG179A)**

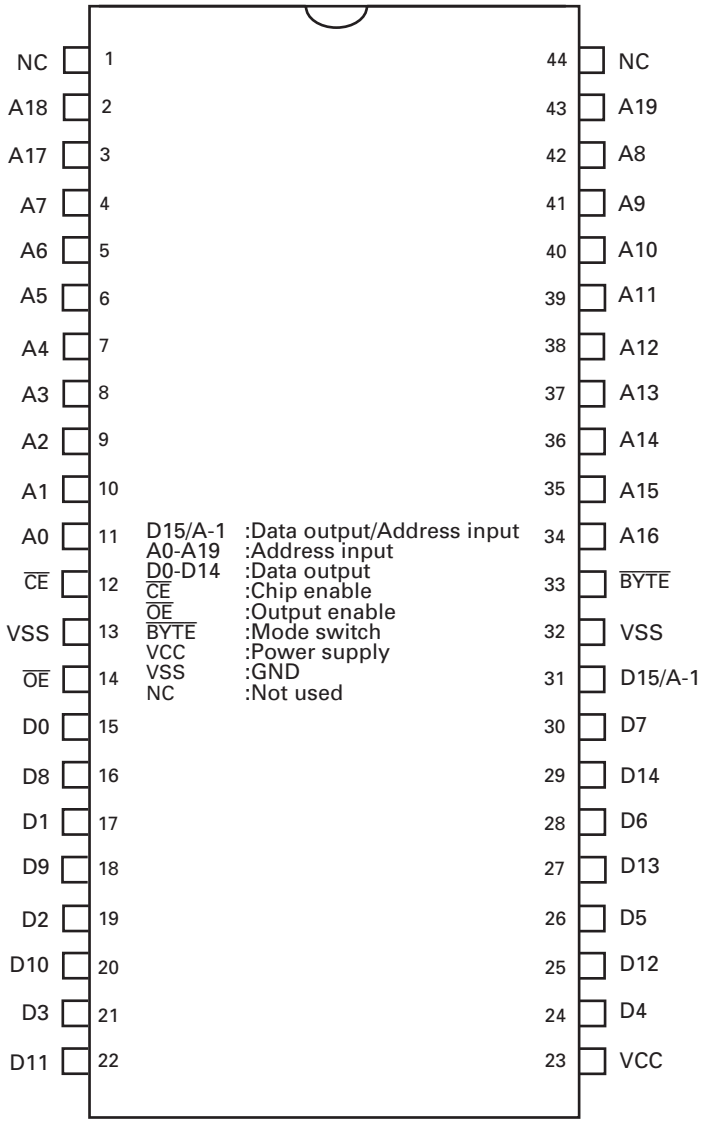
Pin No.	Pin Name	I/O	Format	Function and Operation
1	NC			Not used
2	ROMDT	I/O	C	ROM collection data input/output
3	ROMCS	O	C	ROM collection chip select output
4	REM	I		Remote control reception input
5	ROMCK	O	C	ROM collection clock output
6	BYTE	I		GND connection
7	CNVSS	I		GND connection
8, 9	NC			Not used
10	$\overline{\text{RESET}}$	I		Pull up
11	XOUT			Crystal oscillating element connection pin
12	VSS1			GND connection
13	XIN			Crystal oscillating element connection pin
14	VCC1			VCC connection
15	$\overline{\text{NMI}}$	I		NMI input
16	NC			Not used
17-20	$\overline{\text{KS1-4}}$	O	C	Key strobe output
21	NC			Not used
22	DSEL	O	C	Display data select output
23	NC			Not used
24	CKD	O	C	OEL data transfer and driver clock output
25	NC			Not used
26	LS	O	C	OEL line synchronous signal output
27	DPDT	I		Display data communication input
28	KYDT	O	N	Key data communication output
29,30	ROT1,2	I		Rotary encoder pulse input
31,32	NC			Not used
33	OELD	O	C	Display data output
34	NC			Not used
35	CLK0	I		UART0 clock input
36	NC			Not used
37	$\overline{\text{RDY}}$	I		RDY signal input
38	NC			Not used
39	$\overline{\text{HOLD}}$	I		HOLD signal input
40,41	NC			Not used
42	$\overline{\text{RD}}$	O	C	Read strobe output
43,44	NC			Not used
45-47	BANK2-0	O	C	Bank address output
48	$\overline{\text{CS0}}$	O	C	External ROM chip select output
49	NC			Not used
50-59	A18-9	O	C	Address bus output
60	VCC2			VCC connection
61	A8	O	C	Address bus output
62	VSS2			GND connection
63-70	A7-0	O	C	Address bus output
71-86	D15-0	I/O	C	Data bus input/output
87	OFFMODE	O	C	LED output for light at the time of mode of display OFF
88	JOYST	I		Rotary encoder AD input
89	WHITE	O	C	White illumination ON output
90	BLUE	O	C	Blue illumination ON output
91-93	$\overline{\text{KD3-1}}$	I		Key data input
94	AVSS			GND connection
95	$\overline{\text{KD3-1}}$	I		Key data input
96	VREF			GND connection
97	AVCC			VCC connection
98-100	NC			Not used

* PEG179A



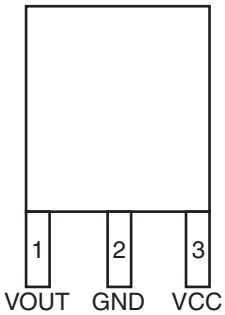
Format	Meaning
C	CMOS
N	Nch open drain

* PD8160A

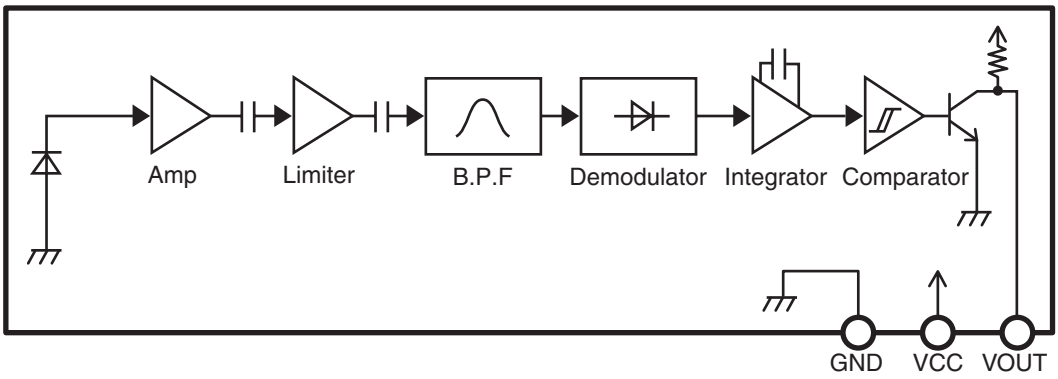


GP1UX51RK

● **Pin Layout**



● **Block Diagram**

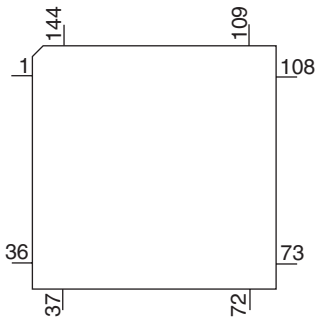


● Pin Functions (UPD63763CGJ)

Pin No.	Pin Name	I/O	Function and Operation
1	D.VDD		Power supply for digital circuits
2	D1.GND		Ground for 1.6 V digital circuits
3	$\overline{\text{RESET}}$	I	Input of reset
4-8	AB12-8	I	Address bus 12-8 from the microcomputer
9-16	AD7-0	I/O	Address/data bus 7-0 to the microcomputer
17	$\overline{\text{CS}}$	I	Chip selection
18	ASTB	I	Address strobe
19	$\overline{\text{READ}}$	I	Control signals(read)
20	$\overline{\text{WRITE}}$	I	Control signals(write)
21	$\overline{\text{WAIT}}$	O	Control signals(wait)
22	INTQ	O	Interruption signals to the external microcomputer
23,24	IFMODE0,1	I	Switching the microcomputer I/F 0, 1
25	D1.VDD		Power supply for 1.6 V digital circuits
26	DA.VDD		Power supply for DAC
27	ROUT	O	Output of audio for the right channel
28	DA.GND		Ground for DAC
29	REGC		Connected to the capacitor for band gap
30	DA.GND		Ground for DAC
31	LOUT	O	Output of audio for the left channel
32	DA.VDD		Power supply for DAC
33	X.VDD		Power supply for the crystal oscillator
34	XTAL	I	Connected to the crystal oscillator(16.9344 MHz)
35	$\overline{\text{XTAL}}$	O	Connected to the crystal oscillator(16.9344 MHz)
36	X.GND		Ground for the crystal oscillator
37	VDDREG15		Control of 1.6 V regulator
38	PWMSW0	I	Setup 0 for PWM output(SD, MD)
39-41	TEST3-1	I	Connected to Ground
42	PWMSW1	I	Setup 1 for PWM output(FD, TD)
43	TESTEN	I	Connected to Ground
44	D1.GND		Ground for 1.6 V digital circuits
45	DIN	I	Input of audio data
46	DOUT	O	Output of audio data
47	SCKIN	I	Clock input for audio data
48	SCKO	O	Clock output for audio data
49	LRCKIN	I	Input of LRCK for audio data
50	LRCK	O	Output LRCK for audio data
51	$\overline{\text{XTALEN}}$	I	Permission to oscillate 16.9344 MHz
52	D1.VDD		Power supply for 1.6 V digital circuits
53	RFCK/HOLD	O	Output of RFCK/HOLD signal
54	WFCK/MIRR	O	Output of WFCK/MIRR signal
55	PLCK/RFOK	O	Output of PLCK/Output of RFOK
56	LOCK/RFOK	O	Output of LRCK/Output of RFOK
57	C1D1/C8M/(RA13)	O	Information on error correction/C8M : 8 MHz
58	C1D2/C16M/(RA12)	O	Information on error correction/C16M : 16 MHz
59	C2D1/RMUTE	O	Information on error correction/Mute for Rch
60	C2D2/LMUTE	O	Information on error correction/Mute for Lch
61	C2D3/SHOCK	O	Information on error correction/Detection of vibration
62	D1.GND		Ground for 1.6 V digital circuits
63	C33M	O	Output of 33.8688 MHz(CLK for SDRAM)
64	($\overline{\text{RCS}}$)	O	DRAM $\overline{\text{CS}}$
65	RA11	O	Output of DRAM address 11
66	(CKE)	O	Output of DRAM CKE
67	$\overline{\text{RAS}}$	O	Output of DRAM $\overline{\text{RAS}}$
68	$\overline{\text{CAS0}}$(LDQM)	O	Output of DRAM lower $\overline{\text{CAS}}$(LDQM)
69	$\overline{\text{CAS1}}$(UDQM)	O	Output of DRAM upper $\overline{\text{CAS}}$(UDQM)

Pin No.	Pin Name	I/O	Function and Operation
70	$\overline{WE}$	O	Output of DRAM $\overline{WE}$
71	$\overline{OE}$($\overline{CAS}$)	O	Output of DRAM $\overline{OE}$($\overline{CAS}$)
72	D.GND		Ground for digital circuits
73-88	RDB0-15	I/O	Input/output of DRAM data0-15
89-99	RA0-10	O	Output of DRAM address0-10
100	D.VDD		Power supply for digital circuits
101	FD+	O	Output of focus drive PWM +
102	FD-	O	Output of focus drive PWM -
103	TD+	O	Output of tracking drive PWM +
104	TD-	O	Output of tracking drive PWM -
105	SD+	O	Output of thread drive PWM +
106	SD-	O	Output of thread drive PWM -
107	MD+	O	Output of spindle drive PWM +
108	MD-	O	Output of spindle drive PWM -
109	REFOUTSV	O	REFOUT for servo
110	AD.VDD		Power supply for ADC
111	EFM	O	Output of EFM signals
112	ASY	I	Input of asymmetry
113	ATEST	O	Analog tests
114	RFI	I	Input of RF
115	AD.GND		Ground for the analog system
116	AGCO	O	Output of RF
117	C3T	O	Connection to the capacitor for detecting 3T
118	AGCI	I	Input of AGC
119	RFO	O	Output of RF(AGC)
120,121	EQ2,1	I	Equalizer 2, 1
122	RF2-	I	Reversal input of RF2
123	RF-	I	Reversal input of RF
124	A.GND		Ground for the analog system
125	A	I	Input of A
126	C	I	Input of C
127	B	I	Input of B
128	D	I	Input of D
129	F	I	Input of F
130	E	I	Input of E
131	VREFIN	I	Input of reference voltage
132	A.VDD		Power supply for the analog system
133	REFOUT	O	Output of reference voltage
134	REFC	I	Connected to the capacitor for output of REFOUT
135	FE-	I	Reversal input of FE
136	FEO	O	Output of FE
137	ADIN	I	Input of FE, TE A/D converter
138	TE-	I	Reversal input of TE
139	TEO	O	Output of TE
140	TE2	O	TE2
141	TEC	I	TEC
142	LD	O	Output of LD
143	PD	I	Input of PD
144	D.GND		Ground for digital circuits

* UPD63763CGJ



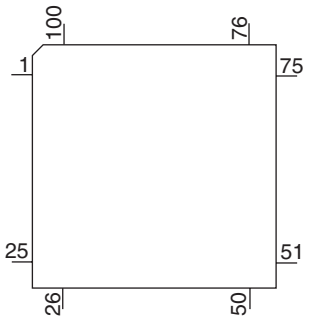
● Pin Functions (PE5561A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	AVREF			A power supply / Positive power supply(5V)
2	AVSS			A power supply GND
3	$\overline{\text{TESTIN}}$	I		Chip check test program starting input
4	CLAMP			Not used
5	EVDD			E power supply / Positive power supply
6	FMODE			For flash rewriting / L : flash rewriting mode
7	FLRQ			For flash rewriting / Reset voltage control
8	IC/FLMD0			IC : VSS direct connection/FLMOD0 : Pull-down
9	VDD			Positive power supply(5V)
10	REGC			Connected to the capacity stabilizing output of the regulator
11	VSS			GND
12	X1	I		Oscillator connection for mainclock
13	X2			Oscillator connection for mainclock
14	$\overline{\text{RESET}}$	I		System reset input
15	XT1	I		Connected to the oscillator for subclock(connected to VSS via the resistor)
16	XT2			Connected to the oscillator for subclock(Open)
17	PULLDOWN	I		Connected to EVDD or EVSS via the resistor
18	$\overline{\text{EJSW}}$			Not used
19	$\overline{\text{XINT}}$	I	C	CD LSI interruption signal input
20	NC			Not used
21	$\overline{\text{BRST}}$	I		Bus reset input
22	BSI	I		Bus serial data input
23	BSO	O	C	Bus serial data output
24	$\overline{\text{BSCK}}$	I/O	/C	Bus serial clock input/output
25	FTxD	O	C	For flash rewriting(transmitted signal)
26	FRxD	I		For flash rewriting(received signal)
27	BRXEN	I/O	/C	Bus RX enable input/output
28	$\overline{\text{BSRQ}}$	I/O	/C	Bus serial clock input/output
29	$\overline{\text{DSPOK}}$			Not used
30	DSCSNS	I	C	Disc state sense input
31	8EJ(S905)	I	C	input of detection of 8 cm disc ejection
32	12EJ(S904)	I	C	input of detection of 12 cm disc ejection
33	EVSS			E power supply GND
34	EVDD			E power supply / Positive power supply
35,36	SRAMLEVEL0,1	O		SRAM level meter output
37	EMPH	O	C	Emphasis information output
38	$\overline{\text{EMPH}}$			Not used
39	CDMUTE			Not used
40	LOEJ			Not used
41	CLCONT	O		Driver input switching output
42	HOME	I		Home SW sense input
43	$\overline{\text{ADENA}}$	O	C	A/D reference voltage supply control output
44	LRCKOK	O	C	(DOUT mute output)
45	SRAMLEVEL2	O	C	SRAM level meter output
46	CD3VON(MCKRQ)	O	C	CD + 3.3 V power supply control output(Digital output : MCKRQ)
47	CONT	O	C	Servo driver power supply control output
48	$\overline{\text{XRST}}$	O	C	CD LSI reset control output
49	VDCONT	O	C	VD power supply control output
50	$\overline{\text{XSI}}$	I		CD LSI serial data input
51	$\overline{\text{XSO}}$	O	C	CD LSI serial data output
52	$\overline{\text{XCK}}$	O	C	CD LSI serial clock output
53	$\overline{\text{XWAIT}}$	I	C	CD LSI wait control signal input
54	XASTB	O	C	CD LSI address strobe output
55	AD0	O	C	Address/data Bus 0
56	INT			Not used

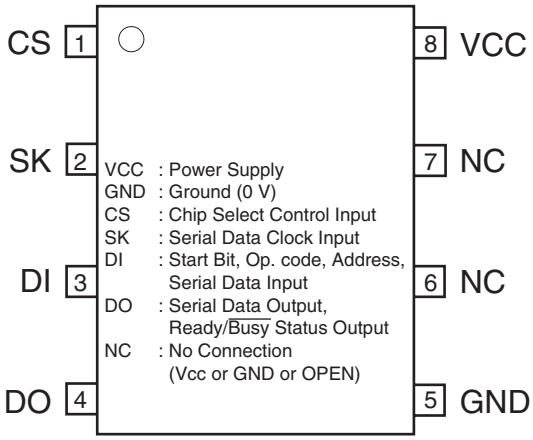
Pin No.	Pin Name	I/O	Format	Function and Operation
57	ROMDATA	I/O		E2PROM data input/output
58	ROMCK	O		E2PROM clock output
59	ROMCS	O	C	E2PROM chip selection output
60,61	NC			Not used
62	CLKOUT			Not used
63	LOCK	I		Spindle lock input
64-68	NC			Not used
69	BVSS			B power supply GND
70	BVDD			B power supply / Positive power supply
71-75	NC			Not used
76	FLMD1	I/O	/C	Address/Data Bus 5
77-90	NC			Not used
91-93	A/D			Not used
94	$\overline{\text{CSENS}}$			Not used
95	TYPE_A/D			Not used
96,97	NC			Not used
98	TEMP			Not used
99	VDSENS	I		VD power supply short sense input
100	DSCSNS			Not used

Format	meaning
C	C MOS

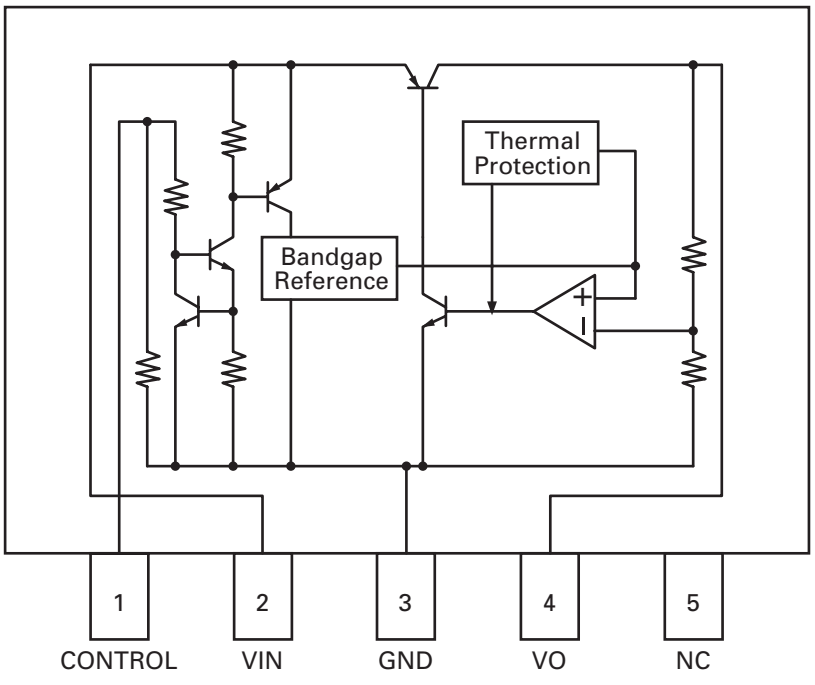
* PE5561A



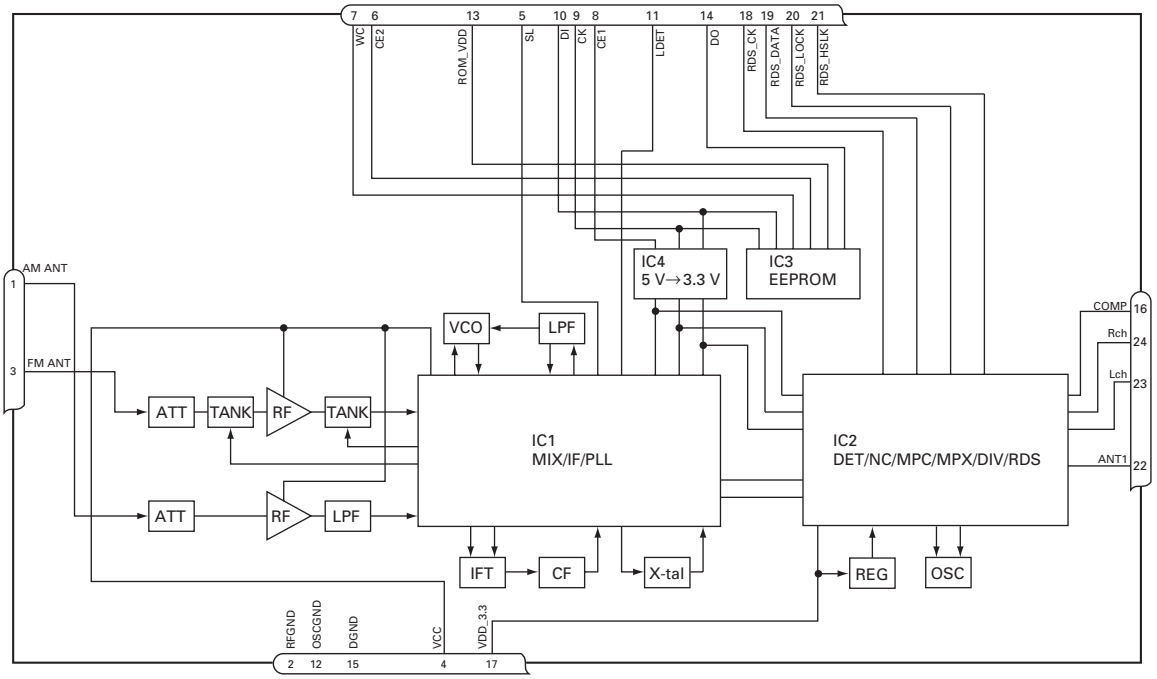
* BR93L56RFVM-W



NJM2886DL3-33

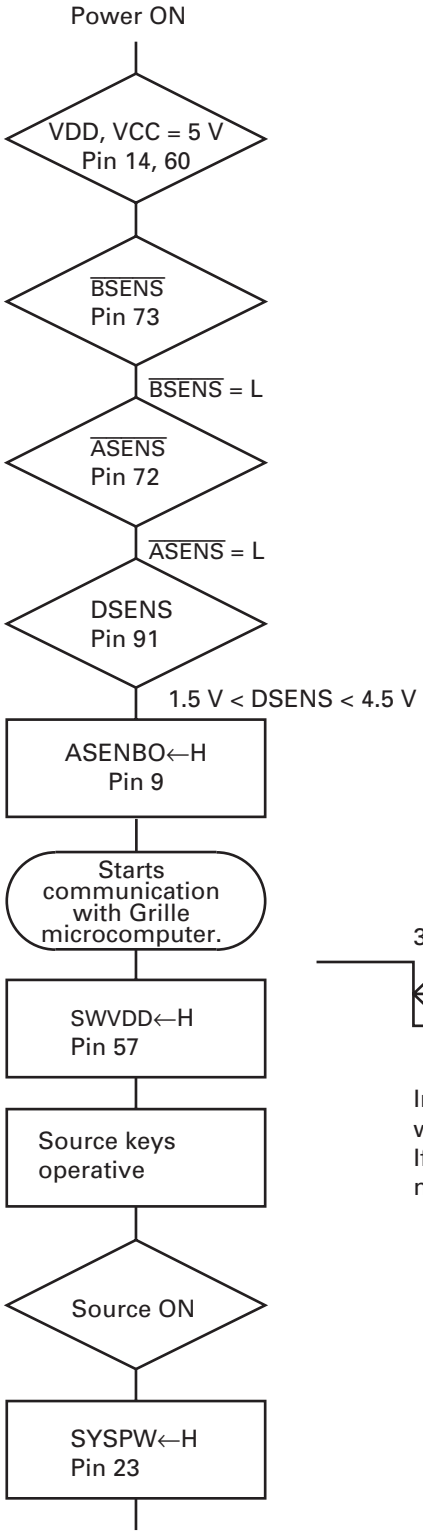


● FM/AM Tuner Unit

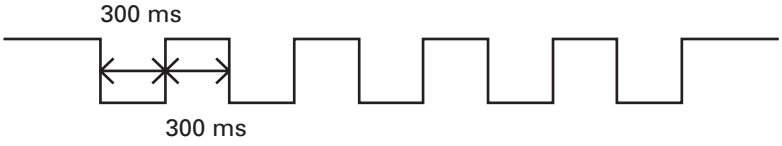


No.	Symbol	I/O	Explain	
1	AMANT	I	AM antenna input	AM antenna input high impedance AMANT pin is connected with an all antenna by way of 33 μH. (LAU type inductor) A series circuit including an inductor and a resistor is connected with RF ground for the countermeasure against the hum of power transmission line.
2	RFGND		RF ground	Ground of antenna block
3	FMANT	I	FM antenna input	Input of FM antenna 75 Ω Surge absorber is necessary.
4	VCC		power supply	The power supply for analog block. D.C 8.4 V ± 0.3 V
5	SL	O	signal level	Output of FM/AM signals level
6	CE2	I	chip enable-2	Chip enable for EEPROM "Low" active
7	WC	I	write control	You can write EEPROM, when EEPROM write control is "Low". Ordinary non connection
8	CE1	I	chip enable-1	Chip enable for AF•RF "High" active
9	CK	I	clock	Clock data input
10	DI	I	data in	Data input
11	LDET	O	lock detector	"Low" active
12	OSCGND		osc ground	Ground of oscillator block
13	ROM_VDD		power supply	Power supply for EEPROM pin 13 is connected with a power supply of micro computer.
14	DO	O	data out	Data output
15	DGND		digital ground	Ground of digital block
16	COMP	O	composite output	FM composite signal output.
17	VDD_3.3		power supply	The power supply for digital block. 3.3 V ± 0.2 V
18	RDS_CK	O	RDS clock	Output of RDS clock(2.5 V)
19	RDS_DATA	O	RDS data	Output of RDS data(2.5 V)
20	RDS_LOCK	O	RDS lock	Output unit "High" active(2.5 V) (RDS_LOCK turns over by the external transistor. "Low" active)
21	RDS_HSLK	O	RDS high speed lock	Output unit "High" active(2.5 V)(RDS_HSLK turns over by the external transistor. "Low" active)
22	ANT1		diversity antenna control	Antenna switch control signal output. "High" : MAIN, "Low"=SUB
23	L ch	O	L channel output	FM stereo "L-ch" signal output or AM audio output
24	R ch	O	R channel output	FM stereo "R-ch" signal output or AM audio output

7.3 OPERATIONAL FLOW CHART

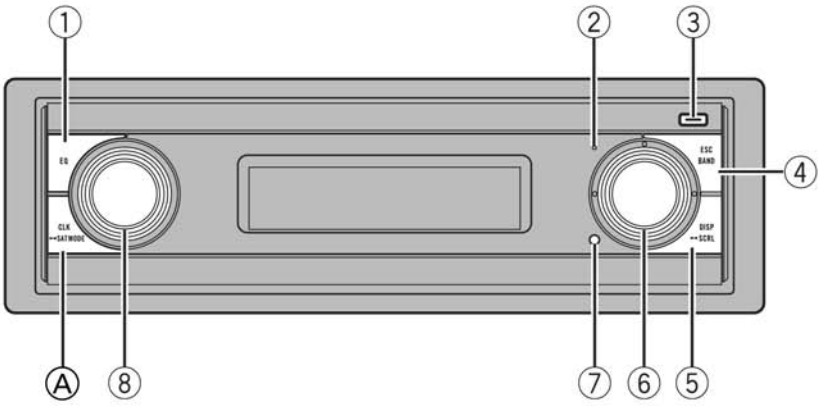


Completes power-on operation.
(After that, proceed to each source operation)



In case of the above signal, the communication with Grille microcomputer may fail.
If the time interval is not 300 msec, the oscillator may be defective.

8. OPERATIONS



Head unit

① **EQ button**
Press to select various equalizer curves.

② **Display off indicator**
Lights up when the display is turned off.

③ **EJECT button**
Press to eject a CD from your built-in CD player.
Press and hold to open or close the front panel.

④ **BAND button**
Press to select among three FM bands and one AM band and to cancel the control mode of functions.

⑤ **DISPLAY button**
Press to select different displays.

⑥ **MULTI-CONTROL**
Move to perform manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions.
Turn to display the disc title list, track title list, folder list, file list or preset channel list depending on the source.

⑦ **RESET button**
Press to reset the microprocessor.

⑧ **SOURCE button, VOLUME**
This unit is turned on by selecting a source. Press to cycle through all the available sources.
Rotate it to increase or decrease the volume.

Ⓐ **CLOCK button (UC, ES)**
Press to change to the clock display. ▣

TA button (EW5)
Press to turn TA function on or off. Press and hold to turn NEWS function on or off. ▣

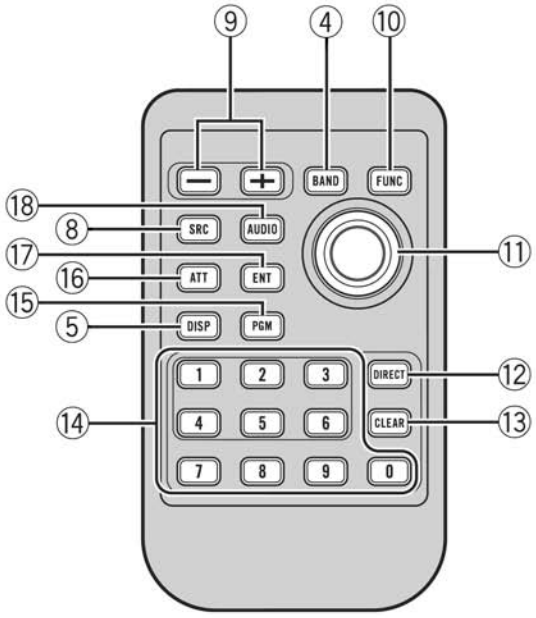
Remote control

Operation is the same as when using the buttons on the head unit.

⑨ **VOLUME buttons**
Press to increase or decrease the volume.

⑩ **FUNCTION button**
Press to select functions.

⑪ **Joystick**
Move to perform manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions.
Press to display the disc title list, track title list, folder list, file list or preset channel list depending on the source.



⑫ **DIRECT button**
Press to directly select the desired track.

⑬ **CLEAR button**
Press to cancel the input number when **0–9** are used.

⑭ **0–9 buttons**
Press to directly select the desired track, preset tuning or disc. Buttons **1–6** can operate the preset tuning for the tuner or disc number search for the multi-CD player.

⑮ **PGM button**
Press to operate the preprogrammed functions for each source.

⑯ **ATT button**
Press to quickly lower the volume level, by about 90%. Press once more to return to the original volume level.

⑰ **ENTERTAINMENT button**
Press to change to the entertainment display.

⑱ **AUDIO button**
Press to select various sound quality controls. ■

Turning the unit on

● **Press SOURCE to turn the unit on.**

When you select a source, the unit is turned on.

Selecting a source

You can select a source you want to listen to. To switch to the built-in CD player, load a disc in the unit.

● **Press SOURCE to select a source.**

Press **SOURCE** repeatedly to switch between the following sources:

XM tuner—SIRIUS tuner—Tuner—Television—DVD player/Multi-DVD player—Built-in CD player—Multi-CD player—iPod—External unit 1—External unit 2—AUX1—AUX2

Notes

- In the following cases, the sound source will not change:
  - — When there is no unit corresponding to the selected source connected to this unit.
  - — When there is no disc in the unit.
  - — When there is no disc in the DVD player.
  - — When there is no magazine in the multi-CD player.
  - — When there is no magazine in the multi-DVD player.
  - — When the AUX (auxiliary input) is set to off.
- External unit refers to a Pioneer product (such as one available in the future) that, although incompatible as a source, enables control of basic functions by this unit. Two external units can be controlled by this unit. When two external units are connected, the allocation of them to external unit 1 or external unit 2 is automatically set by this unit.
- When this unit's blue/white lead is connected to the vehicle's auto-antenna relay control terminal, the vehicle's antenna extends when this unit's source is turned on. To retract the antenna, turn the source off.

Loading a disc

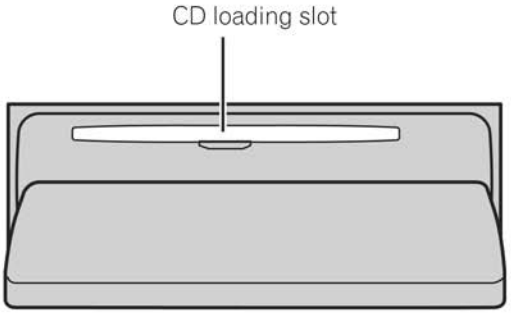
1 Press EJECT to open the front panel.

CD loading slot appears.

■ After a CD has been inserted, press **SOURCE** to select the built-in CD player.

2 Insert a CD into the CD loading slot.

Front panel is closed automatically, and playback will start.



■ You can eject a CD by pressing **EJECT**.

Notes

- The built-in CD player plays one standard, 12-cm or 8-cm CD at a time. Do not use an adapter when playing 8-cm CDs.
- Do not insert anything other than a CD into the CD loading slot.
- There is sometimes a delay between starting up CD playback and the sound being issued. When being read, **Format read** is displayed.
- If you cannot insert a disc completely or if after you insert a disc the disc does not play, check that the label side of the disc is up. Press **EJECT** to eject the disc, and check the disc for damage before inserting it again.

- When the CD loading or ejecting function does not operate properly, you can eject the CD by pressing and holding **EJECT** while opening the front panel.

Adjusting the volume

● **Use VOLUME to adjust the sound level.**

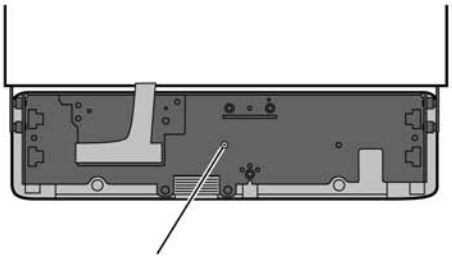
With the head unit, rotate **VOLUME** to increase or decrease the volume.
With the remote control, press **VOLUME** to increase or decrease the volume.

Turning the unit off

● **Press SOURCE and hold until the unit turns off.**

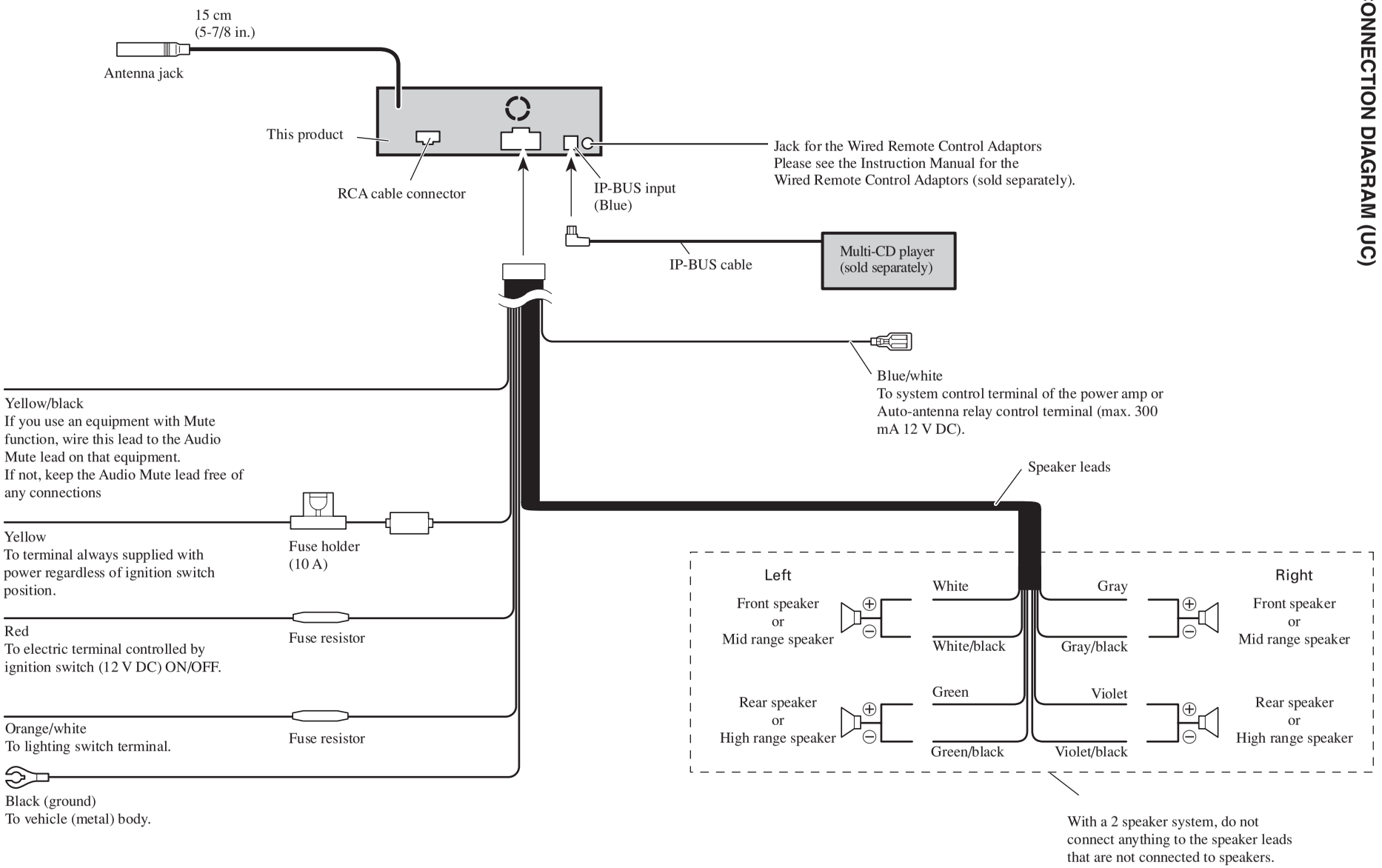
Fixing the front panel

If you do not operate the removing and attaching the front panel function, use the supplied fixing screw and fix the front panel to this unit.

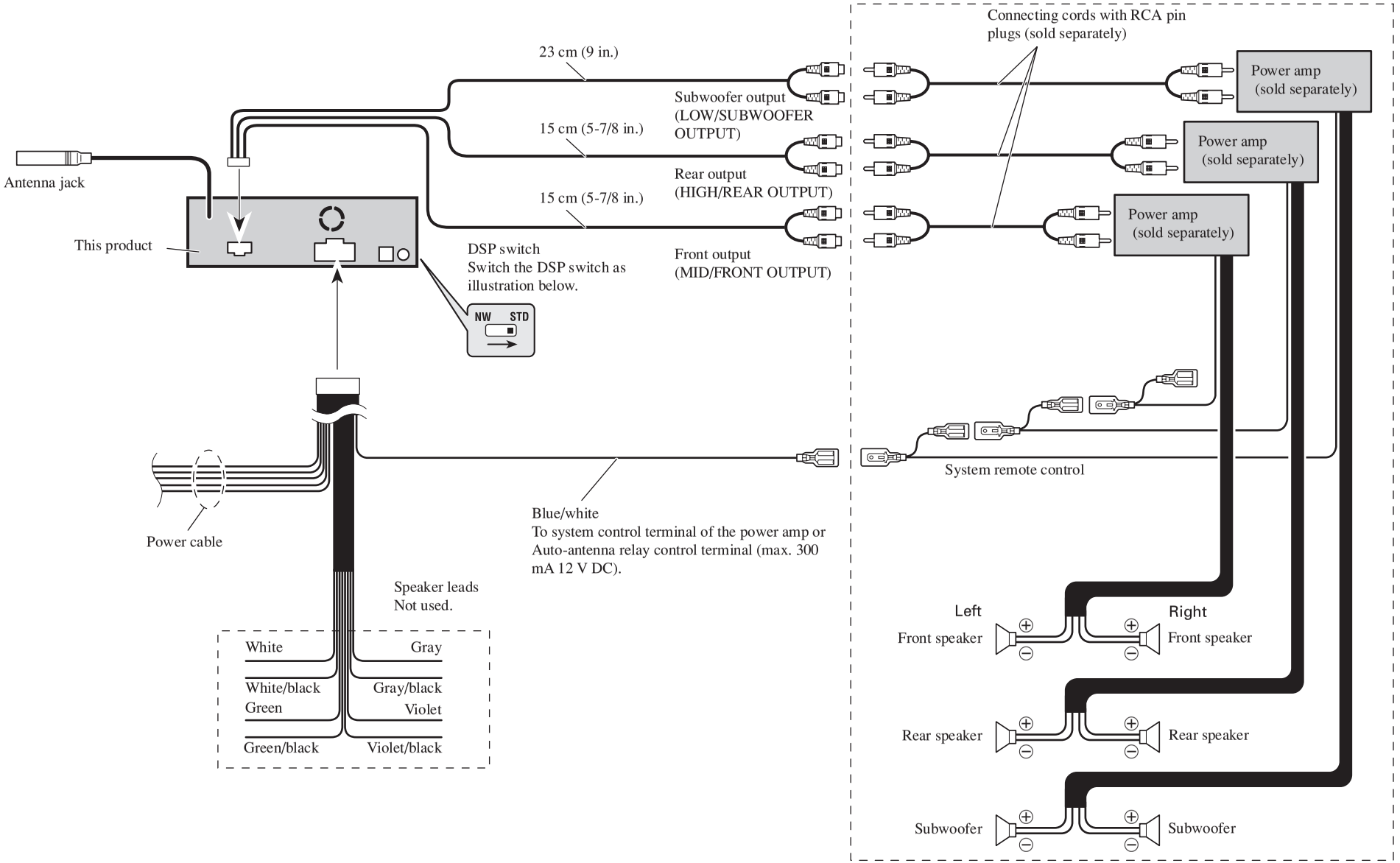


Fixing screw (JPZ20P060FTB)

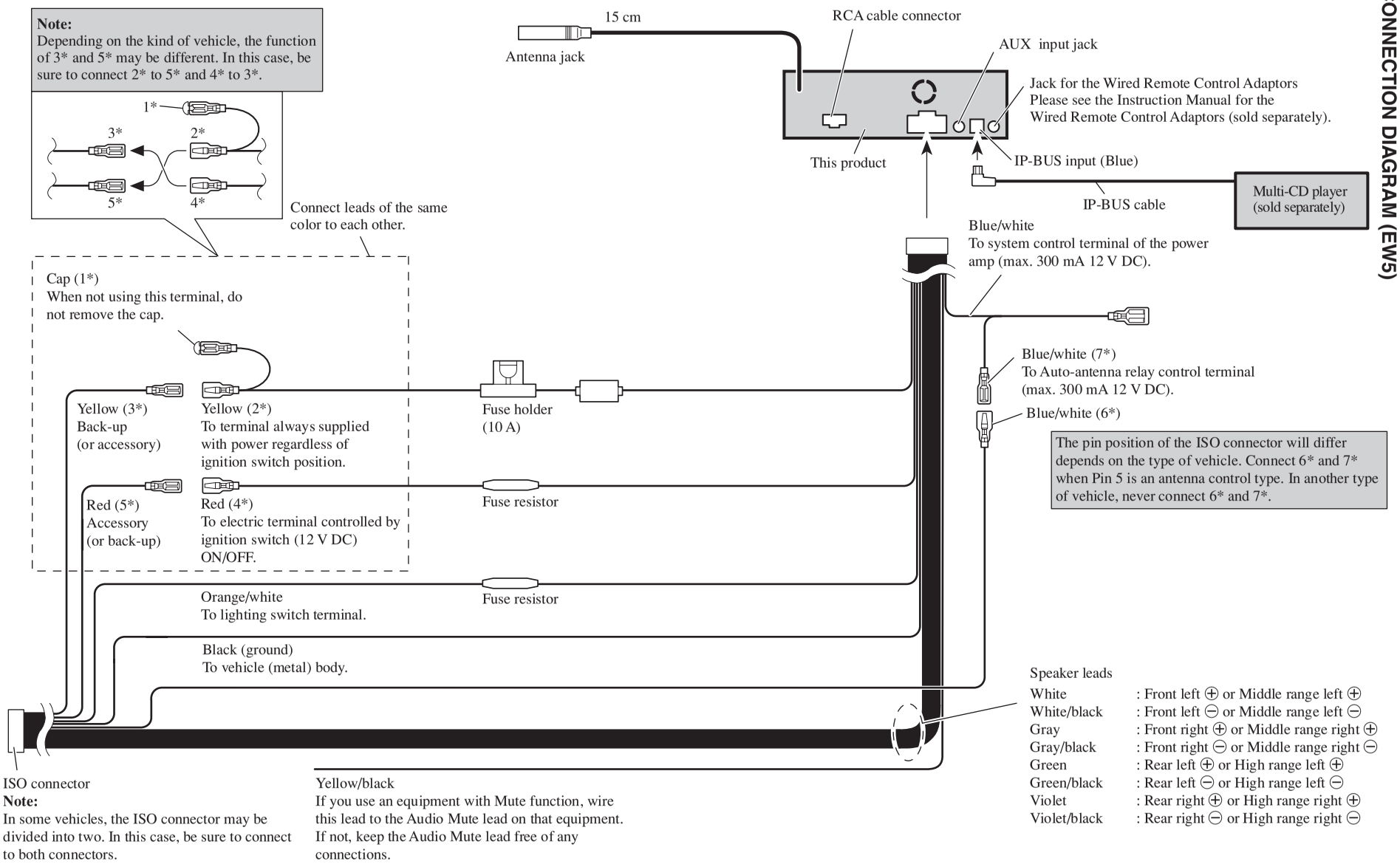
Power cable connection diagram



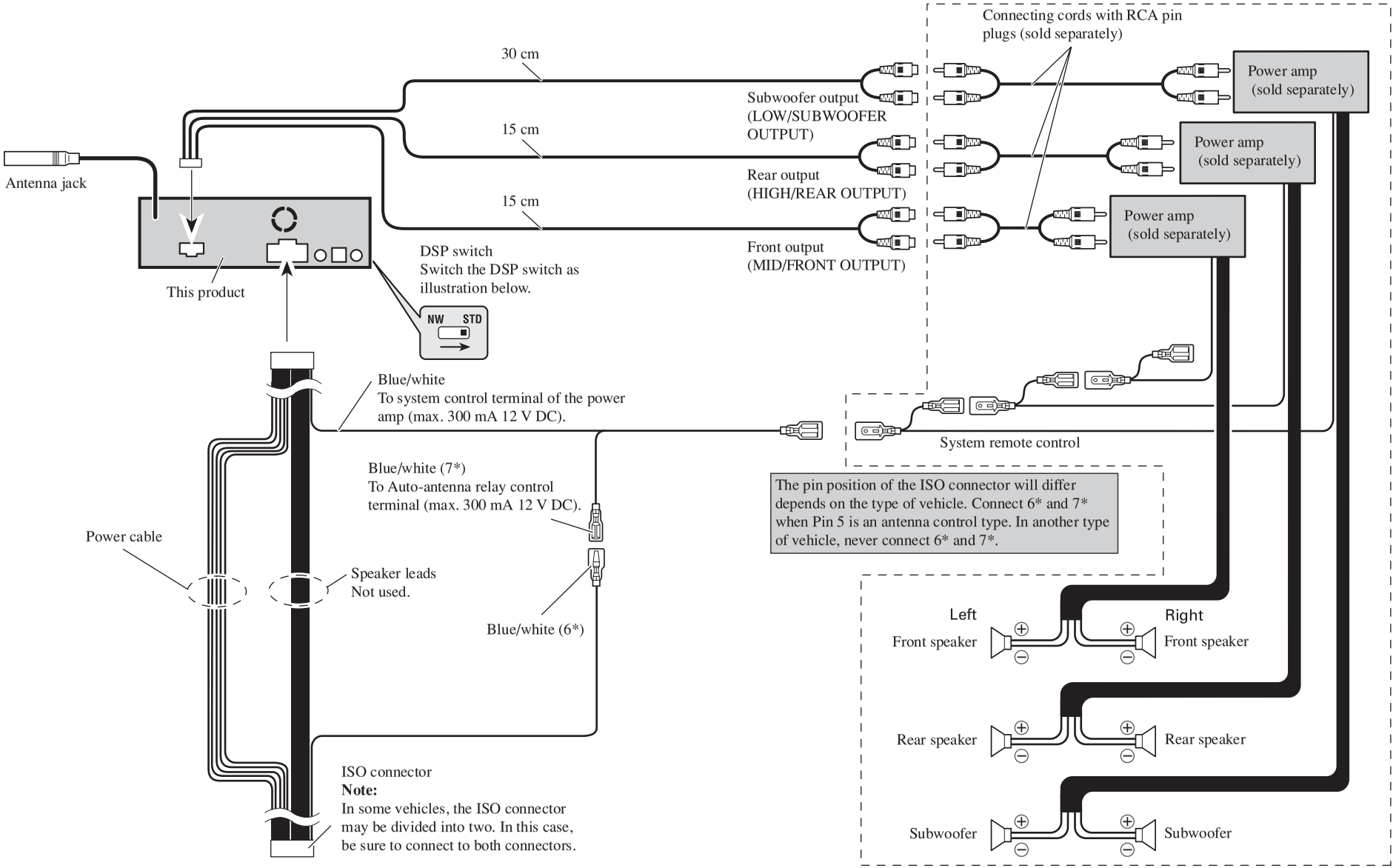
Connection diagram for standard mode without internal amp



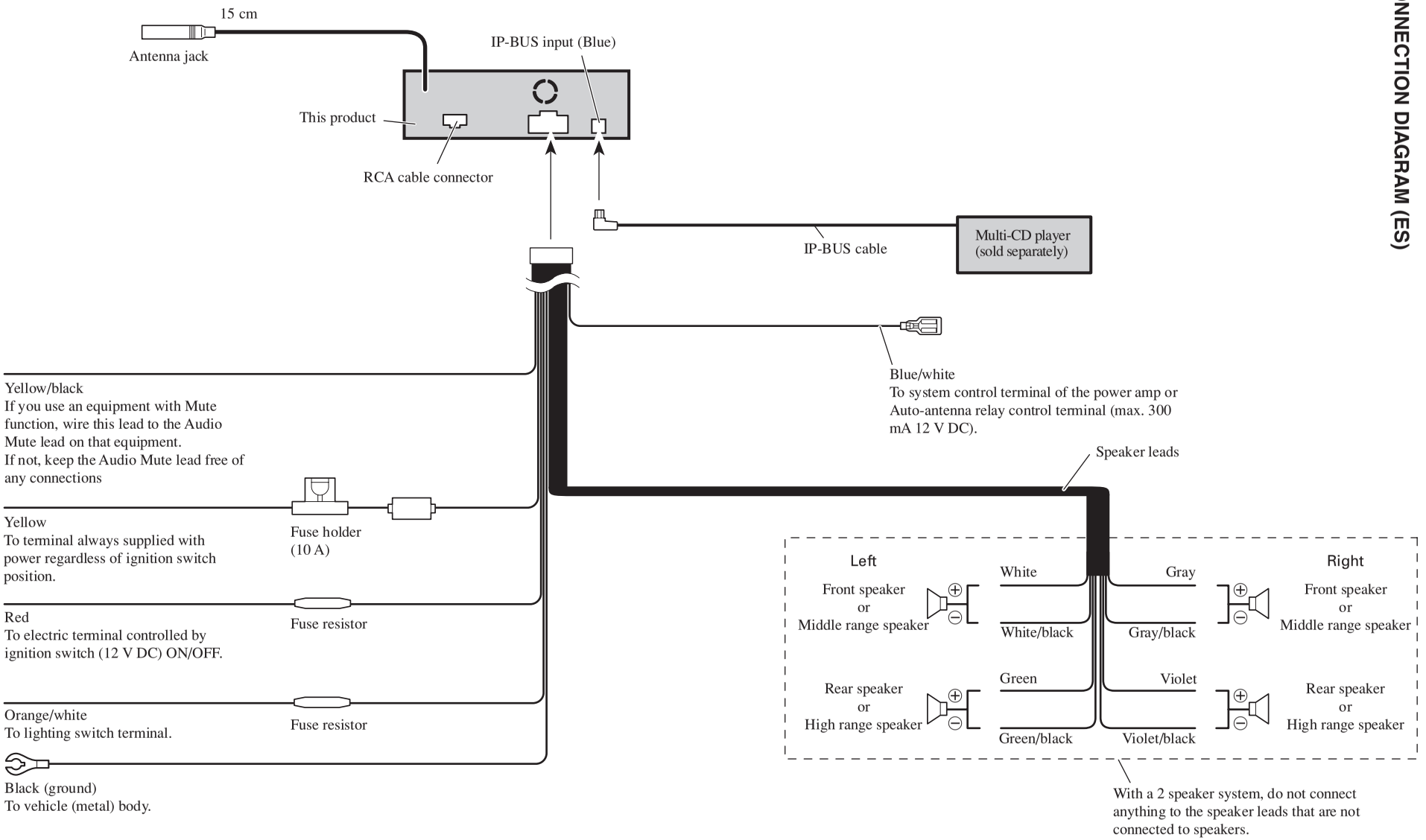
Power cable connection diagram



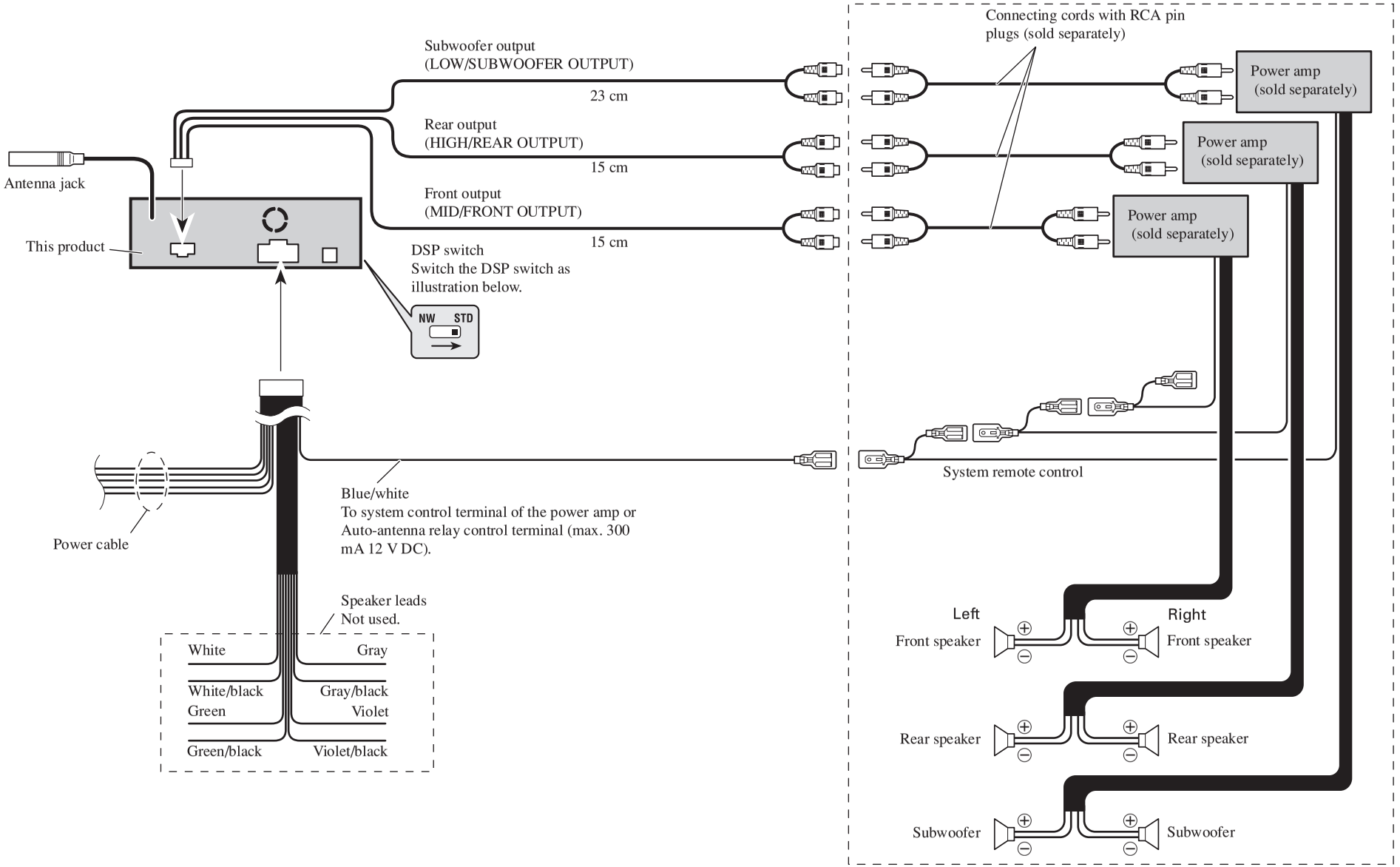
Connection diagram for standard mode without internal amp



Power cable connection diagram



Connection diagram for standard mode without internal amp



● Jigs List

Name	Jig No.	Remarks
Test Disc	TCD-782	Checking the grating
L.P.F.		Checking the grating (Two pieces)

● Grease List

Name	Grease No.	Remarks
Grease	GEM1024	Drive Unit, CD Mechanism Module
Grease	GEM1045	CD Mechanism Module

Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
CD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

Portions to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008